MilitaryReview

SASO

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Theory and Doctrine

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CONTENTS

From the Editor

Today's complex operational environment demands that we out-think, out-act and out-maneuver a variety of adversaries. To provide a resource for that kind of agility, professors, fellows and students in the School of Advanced Military Studies (SAMS) face a daunting challenge: rewrite, staff and publish the Army's keystone manual, FM 100-5, *Operations*. Assisted by the insight and experience of active and retired generals, these officers are adding sinew to a skeletal rendering of the Army's role across the operational spectrum. The manual's new offense, defense, stability and support (ODSS) framework shows that units have multiple roles but emphasize them differently depending on whether the mission is peacekeeping, unconventional operations or major theater war.

In this issue's Theory and Doctrine section, Echevarria and Biever confront a fundamental aspect of military operations, the moral domain, as they discuss four specific contemporary challenges—increased complexity, increased speed and tempo, heightened isolation and unprecedented lethality. Next, you might want to read Hooker's Insights piece on theory, doctrine and maneuver warfare before proceeding to Tooke's explanation of how maneuver and firepower should blend in our warfighting doctrine. Keithly offers suggestions on how to control our air components and make the joint fight more efficient. Taking a slightly different approach to Clausewitz's work than the Army traditionally does, Milan Vego explains the concept of center of gravity beyond what we typically parrot—"the hub of all power on which everything depends."
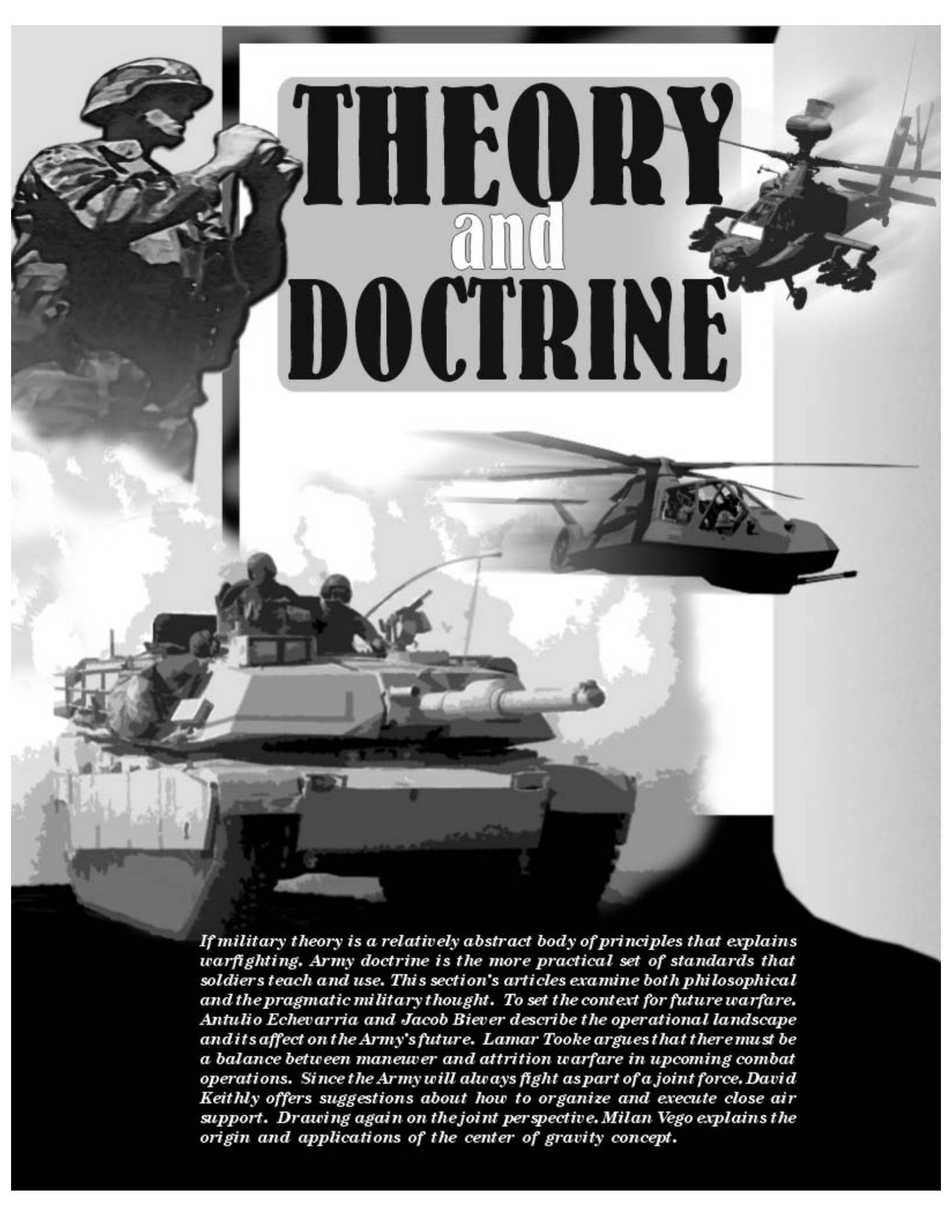
The US bombing of retreating Iraqis—who were not the center of gravity—during Operation *Desert Storm* has drawn numerous critiques—and an advocate in this issue of *MR*. In a philosophical treatise, Stacey Obenhaus uses just war theory to defend the coalition actions and promote ethical decision making in future conflicts.

Operations today are not all maneuver, firepower and close air support. As stability and support operations (SASO) proliferate, philosophical and practical discussions naturally shift to close encounters of a more peaceful kind. To prepare for SASO's functional aspects, Nagl and Young propose modifying training at the dirt training centers so that *all* scenarios train units for peace operations as well as combat. Because the financial constraints can threaten peace operations, Vowell explains the pitfalls of misusing operational funds for support of local nationals, regardless of how noble or worthy the cause. An expert in nonlethal weapon technologies, Heal walks through the different stages of civil unrest and the implications for military forces.

In the Leadership section Sweetnam questions senior leaders who rule from the top without leading from the front. He offers suggestions about leaders' roles and functions, and quietly wonders when principled officers will resign to demonstrate their convictions. Commanders help their units and subordinates learn by communicating not just their intent for an operation, but the rationale behind it, writes Shattuck. According to a 1945 War Department pamphlet, soldiers die in combat unless we learn and live. That holds true today in low-intensity or total war, and Johnson demonstrates the role of documented after action reviews in organizational growth and effectiveness.

From the ethereal realm of classical military theory to the practical conundrums of Army operations *du jour*, this issue of *MR* spans the Army's contemporary spectrum. Wherever you are in the continuum, let us know what you are doing—and thinking.

LJH

THEORY
and
DOCTRINE

If military theory is a relatively abstract body of principles that explains warfighting. Army doctrine is the more practical set of standards that soldiers teach and use. This section's articles examine both philosophical and the pragmatic military thought. To set the context for future warfare. Antulio Echevarria and Jacob Biever describe the operational landscape and its affect on the Army's future. Lamar Tooke argues that there must be a balance between maneuver and attrition warfare in upcoming combat operations. Since the Army will always fight as part of a joint force. David Keithly offers suggestions about how to organize and execute close air support. Drawing again on the joint perspective. Milan Vego explains the origin and applications of the center of gravity concept.

Warfighting's Moral Domain

**Lieutenant Colonel Antulio J. Echevarria II, US Army, and
Major Jacob D. Biever, US Army**

THE ARMY'S NEXT keystone doctrinal in-
strument Field Manual (FM) 100-5, *Operations,*
must explain that the nature of modern warfighting,
as it is likely to occur over the next five to six years,
will differ substantially from that of two hundred
years ago. Previous versions of FM 100-5 dis-
cussed the dynamic nature of warfare (a subject all
too often omitted from documents of its type) as a
product of the clash between opposing wills and the
influence of the famed Clausewitzian impon-
derables—danger, fog, friction, chance and uncer-
tainty. However, these versions failed to mention
any circumstances or conditions likely to figure sig-
nificantly in near-term warfighting, particularly
within the moral domain. This is a serious doctri-
nal issue, especially since the conditions of warfare
from 2000 to 2010 may confront the Army with
greater challenges than it has faced even in the re-
cent past. This article discusses those challenges
and concludes that, to meet them, the Army must
begin now to develop leaders with higher levels of
maturity and experience and units with greater co-
hesion and flexibility.

It will not be enough for doctrine to refer to
"modern" conflict. The nature of warfare defines
elements that endure over time, and modern denotes
a very broad and often ill-defined period of warfare
that dates back to the Napoleonic era. The use of
such terms leaves the impression that the tactics,
techniques and procedures that served Napoleon's
Imperial Guard or the World War I doughboy will
work equally well for the proto-Force XXI warrior.
In fact, nothing could be further from the truth.
Although the Advanced Warfighting Experiments
continue to yield important lessons, they have al-
ready taught the Army that information technology
will introduce new and significant challenges to
tomorrow's soldiers and leaders. Many of these
challenges will emerge within the next five or six
years, the period governed by the new version of

FM 100-5, and decisively shape the character of
contemporary warfighting. FM 100-5 requires,
therefore, a description of that character and of the
specific aspects of contemporary warfighting likely
to affect the Army's soldiers, leaders and units in
the near-term. In support of this recommendation,
we suggest that emerging technological capabilities
of the 21st century and the operational concepts that
employ them will give rise to four specific warfighting
challenges:

- Increased complexity;
- Unparalleled speed and unrelenting tempo;
- Heightened physical and psychological iso-
lation; and
- Unprecedented lethality.

Tomorrow's Warfighting Challenges

Increased complexity. The recent institutional-
ization of new warfighting dimensions such as in-
formation, space and the electromagnetic spectrum
will dramatically increase contemporary battlefield
complexity by introducing a greater number of in-
dependent and dependent variables into mission
planning and execution.[1] Rapid, full-dimensional,
highly integrated and synchronized future operations
will generate a larger number of moving parts func-
tioning at higher speeds and force even junior lead-
ers to cope with increasing complexity. In addition,
in the near-term dynamic geopolitical environment,
leaders will likely encounter complex military-
political problems requiring solutions outside the
scope of established policies and rules of engage-
ment. Tomorrow's leaders will probably find that
centralized management will fail because the
challenges of mastering the command and control
(C^2) process will overcome the human ability to
concentrate on achieving the end result.[2]

Historically, improvements in command tools
have resulted in increased battlefield complexity; the
dynamics of warfare tend to push the number of
moving parts to the limits of C^2. Information tech-
nologies (IT) will both enhance the capabilities of
commanders to control their forces and tempt them
to increase the number of elements requiring that

> *Battlefield intuition—the superior judgment that comes from years of training and experience—will remain as important to tomorrow's leaders as it was to Caesar. The Army can best achieve and maintain this cognitive flexibility through the cultivation of mature, highly experienced leaders.*

control. Likewise, history shows that from the standpoint of the individual soldier, the sophistication and size of the warrior's tool kit has grown over time—from the *gladius* and *pilum* of Caesar's day to the chemical-based and wire-guided munitions of today. Near-term warfare will continue this trend by enlarging soldiers' requisite skill sets. Knowledge of foreign languages, cultures, geography and demography will prove extremely useful even to small unit leaders as will a growing number of basic combat, mechanical, communicative and conceptual skills. Soldiers will have to know and do more than ever before, from performing operator-level maintenance on sensitive digital equipment to demonstrating competence with an ever growing number of tactics, techniques and procedures. As always, realistic training and well-understood doctrine will help simplify battlefield complexity. However, a multidimensional, rapidly changing battlefield will generate problems and contingencies not anticipated by such traditional preparation and guidance.

Unparalleled speed and unrelenting tempo. Because emerging technologies will afford them the opportunity to do so, tomorrow's leaders and soldiers will likely operate within highly compressed planning and execution cycles and have less time for coordination or contingency planning.[3] Soldiers at all levels will have to make decisions more quickly and, most likely, with less than optimum information and less room for error. IT will increase situational understanding, but heightened levels of speed and mobility will change the relevant common picture of the battlefield frequently and often dramatically. Leaders and decision makers must rapidly digest and act on an indeterminate and ever-changing amount of information. The heightened speed and tempo possible in the near term will generate greater physical and emotional stress for soldiers, thereby subjecting them to an increased risk of cognitive and psychological impairment.[4]

Heightened physical and psychological isolation. Extended battlefield dispersion may multiply the physical distance between soldiers, leaders and units heightening their sense of physical and psychological isolation. They will often have to fight as semi-isolated crews and small teams without physical or visual contact with friendly elements.

This physical separation will pose significant problems for an individual's psychological resilience because soldiers have traditionally coped with danger by drawing confidence from the proximity of comrades and leaders. The extent to which IT and speed of movement can overcome or compensate for this dispersion remains an open issue. Incidentally, while the Army deliberates over whether to eliminate one or more of its warfighting echelons, the soldier's psychological need for leadership and emotional support from comrades will limit organizational flattening of small-units.[5]

Unprecedented lethality. In the early 21st century, the combination of IT and fire control and targeting systems will enable commanders to destroy a division- or corps-sized enemy force almost instantaneously in a single, near-simultaneous strike. The increasing range of contemporary weapons will mean that lethal fires can come from any distance or direction, including space. No safe areas will exist other than those decreed by policy makers to limit the escalation of a conflict. Even small errors on such a battlefield can mean devastating fratricide or collateral damage. The unprecedented lethality of tomorrow's battlefield will place tremendous pressure on soldiers and leaders to ensure precise mission planning and execution. While near-simultaneous, operational-level ambushes or multidimensional strikes may become the norm in conventional conflict, unconventional operations fought in hostile environments against primitive weapons will pose just as serious a threat to individual soldiers as combat involving sophisticated technologies. Lethality will assume many forms, from crude weapons of mass destruction to brilliant munitions.[6]

Responding to the Challenges via the Moral Domain

The Army can best meet the warfighting challenges of modern conflict in two ways—by developing mature, experienced leaders and by creating cohesion that offers a psychological safety net.

Mature, experienced leaders. In the near-term, Army leaders will need better cognitive flexibility to develop and apply unscripted solutions to multidimensional problems and then to conceptualize and evaluate a wide range of highly contingent outcomes. Battlefield intuition—the superior judgment that comes from years of training and experience—will remain as important to tomorrow's leaders as it was to Caesar. The Army can best achieve and maintain this cognitive flexibility through the cultivation of mature, highly experienced leaders. Such leaders will offer at least four benefits to the Army:

- A mastery of increased skill sets.
- A greater experience in command and staff positions.

Collateral damage to city blocks near General Manuel Noriega's headquarters (*arrow*) in Panama, and (*inset*) an M1 Abrams tank hit by "friendly fire." Note the radiation contamination sign at the corner of the taped off area.

US Army, Inset *Soldier of Fortune*

The unprecedented lethality of tomorrow's battlefield will place tremendous pressure on soldiers and leaders to ensure precise mission planning and execution. No safe areas will exist other than those decreed by policy makers to limit the escalation of a conflict. Even small errors on such a battlefield can mean devastating fratricide or collateral damage.

● A firm foundation for building battlefield intuition.

● A psychologically resilient core of leadership familiar and comfortable with their roles.[7]

Fortunately, OPMS XXI initiatives have already begun to move in this direction.

To complement their mature and experienced leaders, Army *units* must adapt quickly to changing situations. Flexible units allow leaders to initiate decisive, perhaps preemptive, action before a given situation unfolds. To build this unit climate, the Army will have to foster a broader learning-oriented culture that responds nearly spontaneously and simultaneously to unpredictable situations, operates inside the enemy's learning cycle, and encourages subordinates to exercise initiative and to assume responsibility.

Cohesive Units. Developing and maintaining stable, cohesive units will provide a superior foundation for developing such a culture.[8] Soldiers who train together for long periods achieve shared conceptual models—common ways of understanding the general environment, their unit's capabilities and responses to specific situations.[9] Such common conceptual models allow leaders, peers and subordi-

nates to act cohesively, with little or no communication, even in rapidly changing situations. In extreme cases, soldiers can predict each other's actions. Teamwork and predictive capacities increase with time.[10] Together with proper training and doctrine, organizational adaptability will offer commanders a dynamic and invaluable combat multiplier.

Cohesive units can also supply soldiers with a psychological safety net to support them in tomorrow's more demanding battlefield environment. Cohesive units require little supervision, exhibit mutual trust, confidence and loyalty and can effectively handle complex tasks.[11] One intense experience may suffice to build loyalty and trust. Technical competence and individual self-confidence may require more time to develop, but will remain closely associated with the team's success during training events or actual warfighting experiences.[12] Evidence suggests a direct correlation between individual courage and soldiers' trust and confidence in their comrades.[13] Thus, a cohesive, well-trained unit benefits from the synergism that comes from the collective contributions of its individual parts.[14] Of course, as the historical examples of the crew of the *Bounty*, the French army in 1917, and the

German navy in 1918 indicate, proper leadership is necessary to avoid a "counter-culture" cohesion that undermines military discipline and acts contrary to the commander's intent.[15]

Fortunately, progress in synthetic training environments—virtual, constructive and live simulations—may allow the Army to compress the time required to develop experienced leaders and cohesive units. Synthetic environments allow safe, highly effective training with instant replay capability to identify and isolate errors or deficiencies in execution. Commanders, staffs and small units can work through a series of increasingly demanding exercises to build trust, confidence and unit readiness. Of course, live training will remain essential to both individual and unit development. However, realistic synthetic environments allow live training to serve as a finishing exercise that optimally uses time and other resources.

The Army's keystone doctrinal instrument, FM 100-5 should at least outline the battlefield conditions—or challenges—likely to confront our leaders and soldiers during the next five or six years — the usual tenure for a document of this type. This description is always fundamental because FM 100-5 sets the tone for the development of doctrine in all branches and special functions. But because modern conflict will likely present near-term unique challenges to warfighters, the need for FM 100-5's image of the battlefield is urgent. These challenges take the form of increased complexity, unparalleled speed and unrelenting tempo, heightened physical and psychological isolation and unprecedented lethality. To meet these challenges successfully, the US Army must begin now to develop leaders with greater maturity and experience, and to build highly adaptable, cohesive units. Experience and unit cohesion should serve as the centers of gravity—the "hubs" around which all else revolves—Force XXI and 2010. Near-term warfighting will likely leave less room for error and allow significantly less ramp-up time than *Desert Shield*. Accordingly, the old ways of doing business—paying lip service to the need for personnel stability and unit cohesion—will fail us on tomorrow's battlefield. We must use this transition period to examine seriously our warfighting requirements. Eventually, we must learn to fight within the optimal range of our capabilities while simultaneously forcing the enemy to operate beyond the limits of his own. **MR**

NOTES

1. Huba Wass de Czege, "Military Art in 2025," paper dated 15 May 1997.
2. General Gordon R. Sullivan, "Delivering Decisive Victory: Improving Synchronization," *Military Review* (September 1992), 1-11.
3. Robert H. Scales Jr., "Cycles of War and Information Age Warfare: The Essence of the Army After Next Project," *Armed Forces Journal International*, (July 1997); and Huba Wass de Czege, "Military Art in 2025."
4. Franklin D. Jones, et al., Military Psychiatry, Part I: *Warfare, Weapons, and the Casualty* (Falls Church, Virginia: Office of the Surgeon General, United States Army, 1995).
5. Stanley J. Rachman, *Fear and Courage* (San Francisco: W. H. Freeman and Company, 1978), 84-89; Richard Hart Sinnreich, "To Stand and Fight," *ARMY* (July 1997), 15-19.
6. Wass de Czege, "Mobile Strike Force;" A 2010 Potential Force," *Military Review* (July-August 1996), 70-84; Wass de Czege, "Military Art in 2025;" and Stephen Biddle, "Victory Misunderstood: What the Gulf War Tells Us About the Future of Conflict," *International Security* 21, 2 (1996), 139-179.
7. Caroline E. Zsambok and Gary A. Klein, eds., *Naturalistic Decision Making* (New Jersey: Erlbaun, Mahwak, 1997); John R. Hayes, *The Complete Problem Solver*, 2nd Edition, (Hillsdale: New Jersey: Lawrence Erlbaun, 1989).
8. Donn A. Starry, "On Making Our Smaller Army a Better One," *Field Artillery* (February 1991), 20-24; David H. Marlowe, "Personnel and Manpower: Change and Evolution in the Human Dimensions of Military Service," in Charles F. Herman, ed., *American Defense Annual* (New York: Lexington Books, 1994), 147-319.
9. Caroline E. Zsambok and Gary A. Klein, eds., "Naturalistic Decision Making"; and Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York: Currency Doubleday, 1990).
10. David H. Marlowe, ed., New Manning System Field Evaluation, *Technical Report No. 5* (Washington, DC: Walter Reed Army Institute of Research, Department of Military Psychiatry, 1987).
11. Faris R. Kirkland, Morten G. Ender, Robert K. Gifford, Kathleen M. Wright and David H. Marlowe, "Discipline Under Fire: The Human Dimension in Force Projection," *Military Review* (March-April 1996), 57-64; David H. Marlowe, *Cohesion, Anticipated Breakdown, and Endurance in Battle: Considerations for Severe and High Intensity Combat* (Washington, DC: Deptartment of Military Psychiatry, Walter Reed Army Institute of Research, 1979); Gregory Belenky, ed., *Contemporary Studies in Combat Psychiatry* (New York: Greenwood Press, 1986); and Winfried Zimmer, "Clausewitz and the Human Dimension of War," *Military Review* (March 1994), 51-56.
12. Personal communication with BG (Ret) Huba Wass de Czege, GEN (Ret) Wayne Downing, Dr. T. Owen Jacobs and Dr. David H. Marlowe, 1997.
13. Reuven Gal, "Combat Stress as an Opportunity: The Case of Heroism," in Belenky, ed., *Contemporary Studies in Combat Psychiatry*, 31-46.
14. Faris R. Kirkland, et al., "Discipline Under Fire: The Human Dimension in Force Projection;" and Faris R. Kirkland, "Assessing COHORT," *ARMY* (1990), 44-50.
15. Richard Hough, Captain Bligh and Mr. Christian: *The Men of the Mutiny* (New York: Dutton, 1973); BG (Ret) Vincent J. Esposito, A Concise History of World War I (New York: Praeger, 1964); and Martin Gilbert, *The First World War: A Complete History* (New York: Henry Holt, 1994).

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Blending Maneuver and Attrition

Colonel Lamar Tooke, US Army, Retired

There are not more than five musical notes, yet the combinations of these give rise to more melodies than can ever be heard. There are not more than five primary colors, yet in combination they produce more hues than can ever be seen.

—Sun Tzu, *The Art of War*

FOR THE BETTER PART of two decades there has been a growing debate concerning the relative merits of maneuver or attrition as a style of warfare. Enthusiasts on either side of the debate seem to be calling for, indeed precipitating in, a divorce of the two—despite the fact that a pure example of either style of warfare is rare. Maneuver and attrition are inseparable forms of warfare. While one form may dominate a phase of a campaign, the purposeful use of both characterizes all successful modern operations. It is not an argument about the preeminence of one form of warfare over another; strategic and operational aims dictate the appropriate choices of design. No campaign should be two separate struggles—maneuver and attrition must be blended into a harmoniously effective, integrated whole.[1]

Maneuver Warfare

In the earliest recorded manuscript on the theory of war, Sun Tzu described an indirect approach to warfare, which emphasized maneuver to secure victory through positional advantage over his enemies. Less well read, and almost completely overlooked where maneuver is concerned, is the work of Antoine Henri Jomini. Two of his four fundamental principles of war were, "throw by strategic movements the mass of an army, successively, upon the decisive points of a theater of war, and also upon the communications of the enemy as much as possible . . . [and] maneuver to engage fractions of the hostile army with the bulk of one's forces." Central to Jomini's theory was control over three sides of the zone of operations, which he generally saw as a rectangle. Controlling the zone of operations through maneuver would force an opponent to fight at great disadvantage, face capitulation or abandon the zone altogether. Perhaps more widely known are B.H. Liddell Hart's writings after World War I, in which he described the indirect approach and its true aim of strategic advantages.[2]

Hart once described maneuver as much like a torrent of water: "If we watch a torrent bearing down

> *Central to Jomini's theory was control over three sides of the zone of operations, which he generally saw as a rectangle. Controlling the zone of operations through maneuver would force an opponent to fight at great disadvantage, face capitulation or abandon the zone altogether.*

on each successive bank . . . in its path . . . it first beats against the obstacle, feeling and testing it at all points. Eventually, it finds a small crack at some point. Through this crack pour the first driblets of water . . . The pent up water on each side is drawn towards the breach, wearing away the earth on each side . . . widening the gap."[3] This description has often been portrayed as the use of the "surfaces and gaps" method and is often quoted to describe maneuver in its application. Hart's key idea is gaining a positional advantage so strong that it would ensure a positive decision.

Maneuver warfare, as a style or method of conducting war, focuses on defeating the enemy while minimizing battle to that necessary for achieving established aims. Avoiding main sources of strength (surfaces) in favor of attacking enemy weaknesses (gaps) or apparent vulnerabilities, maneuver warfare

seeks instead to place the opponent at great disadvantage in time and space. Maneuver concentrates combat power to gain positional advantage relative to the enemy center(s) of gravity and to shatter enemy morale and cohesion. By using surprise, shock

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One minute is more valuable today than during WWII because of information exchange and firepower precision, volume and rate. The typical WWII tank crew required an average of 17 rounds to kill another tank at about 700 meters. Today a single round hit on the move at 2,400 meters is a high probability.

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and momentum, maneuver seeks to impose the attacker's will on the opponent. This sustained moral threat to the enemy aims more at his psychological state of mind than the mass of his forces. Ideally, a precipitous withdrawal leads to the most favorable moment for a maneuver style of war—when the opponent quits the field. Maneuver war concentrates less on enemy intentions and more on those actions desired of him.[4]

Maneuver warfare in application. Sun Tzu described the maneuver concept in simple ideas: "The Army's disposition of force avoids the substantial and strikes the vacuous. Water configures its flow in accord with the terrain; the army . . . in accord with the enemy." In this fashion Hart's "expanding torrent" would feel its way across the surfaces or strongly defended areas to discover the gaps or weak points. As gaps are discovered the torrent pulls the water behind through the gap expanding to its original size and form. By this method, maneuver warfare's reconnaissance discovers the strongly defended areas and the weak points or gaps. Attacking units pour through the gaps in an exploitation of the weakness, pulling other units away from the strengths or surfaces of the enemy and through the gaps as well. The attacker then consummates decisive action by crashing through the opponent's support structure, taking him from the rear or the flanks. Multiple thrusts offer more opportunities for the attacker, increasing the effects of surprise and chaos and rapidly debilitating the psychological state of an adversary. But it is a competition of time, and one minute is more valuable today than during WWII because of information exchange and firepower precision, volume and rate. The typical WWII tank crew required an average of 17 rounds to kill another tank at about 700 meters. Today a single round hit on the move at 2,400 meters is a high probability.[5]

Tempo of operations. Maneuver tempo is the pace of moves such that an opponent has no time to execute his plan or make rational choices for timely action. A substantial advantage in tempo makes opposing intentions less relevant and their plans increasingly meaningless as time passes. Therefore, resources can be oriented more on what actions are desired of an opponent and much less on his intentions since they will be overcome by imposed events. By moving faster than our foe can react and reacting faster than he can counter our actions, we systematically unravel his ability to react or move at all. But tempo does not directly equate to speed alone. It is a relative advantage found in the relationship between opposing forces. Strength, advance rates, firepower and vehicle speed do not directly translate into tempo. Napoleon advanced on Moscow in 1812 at about 14 kilometers per day, faster than the German approach during Operation *Barbarosa* at 10 kilometers per day.[6]

Operating at a higher tempo than an adversary is achievable two basic ways: cycle faster than the opponent or degrade his cycle to slow his operating

Figure 1.
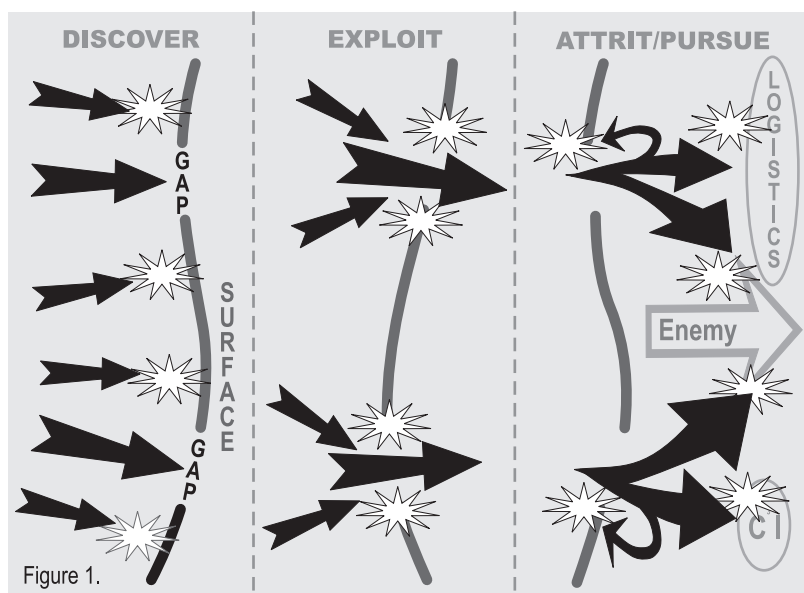
tempo. A faster tempo widens the margin of relevant opposing action with each cycle until the enemy finds himself increasingly behind in a bad situation facing an ever-accelerating pace.[7]

Psychological Target— Morale and Cohesion

Throughout history the pursued have taken disproportionate losses relative to the pursuers. In numerous cases in ancient battles, the victor produced tens of thousands of casualties with comparatively small losses. And this was at a time when each casualty had to be produced by blade, bludgeon and arrow. Throughout his writing in "Ancient and Modern Battle," Ardant du Picq clarifies this defeat phenomena as the result of pursuit after one side's morale and cohesion break under the strain of close combat and they attempt to flee the battlefield. Maneuver warfare maintains that defeat is essentially a psychological phenomenon, in which the human dimension is of critical importance. The powerful combination of fear and isolation convinces an opponent of his defeat. Shattering an adversary's morale and cohesion is achieved by three primary methods operating singularly or in combination: preemptive actions, dislocation and disruption.[8]

Preemptive actions are taken to disarm or neutralize the opponent before the fight ever begins in earnest. Traditional preemptive moves have not been incremental but overwhelming and very surprising. Preemption emphasizes tempo, boldness and resolve to gain success with limited fighting. Erwin Rommel's audacious 1941 advance into Cyrenaica well illustrates how preemption and maneuver warfare achieve results with minimal battle, confirming Ardant du Picq's long-standing assertion that, "even by advancing you affect the morale of the enemy."[9]

Dislocation is an avoidance stratagem, which carries evasion a step further by rendering an adversary's strength irrelevant through positional or functional approaches. Positional dislocation forces irrelevancy upon an adversary by physically removing him from the decisive point or placing the decisive point in time and space where his strength cannot influence the action. Feints to draw opposing strength away from decisive points are good examples of positional dislocation. While not fully successful, the Japanese illustrated this form of dislocation in their attempt to draw the US fleet to the Aleutians and away from Midway and the Sho Plan. Functional dislocation causes an opponent's strength to be inappropriate or neutralized. Hanoi's use of

Grenadiers of Napoleon's Imperial Guard in column of march, circa 1913-1914.

Bibliotheque National, Paris

*Maneuver tempo is the pace of moves such that an opponent has no time to execute his plan or make rational choices for timely action. A substantial advantage in tempo makes opposing intentions less relevant and their plans increasingly meaningless as time passes. . . . Strength, advance rates, firepower and vehicle speed do not directly translate into tempo. Napoleon advanced on Moscow in 1812 at about 14 kilometers per day, faster than the German approach during Operation **Barbarosa** at 10 kilometers per day.*

insurgency and guerilla war functionally dislocated the nuclear strength of the United States at the strategic level, and their focus on American resolve dislocated the military strength committed to limited objectives in Vietnam. Displacing the decisive point is often achieved through deception, as occurred in Operation *Fortitude*, which focused German attention on the Pas de Calais and away from Normandy. Then too, positional dislocation is often achieved by maneuver, as in the successful German turn of the Maginot Line during the 1940 Flanders Campaign.[10]

Attacking gaps disrupts opposing forces and their supporting structure. High-tempo operations, bolstered by surprise, attack vulnerable rear areas containing support structure, communications and unprepared forces. The object is to create confusion, fear and panic that paralyze an opponent's ability to react, while enlarging his vulnerabilities. Certainly the opening campaign into Poland by Germany in 1939 is a well-studied classic of maneuver

warfare and the effects of disruption. Equally disruptive was General Douglas MacArthur's landing at Inchon, which cut the North Korean Army's lines

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To "out cycle" an opponent through attrition depends on the ability to produce and place into action more equipment and trained people than the enemy can field, while concurrently reducing his capability to recover the destructive effects of battle. New technology in attrition equation can also overcome an adversary.

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of operation and caused its precipitous withdrawal.[11]

The immediate threat of battlefield injury and death incites greater fear than distant firepower. When the close personal threat is consummated by surprise, the attacker reduces his casualties by half, while the unprepared opponent has his casualty rate doubled or tripled based on the shock alone.[12]

Attrition Warfare

Attrition warfare is theoretically rooted in the concepts of Carl von Clausewitz who concluded in *On War* that, "Destruction of the enemy forces is the overriding principle of war . . . battle is the one and only means that warfare can employ." While this excerpt does not represent Clausewitz's philosophy, the central idea of annihilation springs from his work. This form of warfare seeks to systematically and progressively destroy the enemy's capacity to

wage war. Whether in rapid attempts with overwhelming force or in protracted form with small forces, the process destroys crucial resources faster than the adversary can replace them. Opposing capabilities to wage war become targets to destroy effectively and efficiently. Since WWI, effective and efficient destruction generally means using firepower. Levels of destruction are the critical measure and lead to or equal defeat of the opposing military mass when the adversary loses the will or capacity to continue. Attrition warfare pursues battle to destroy enemy war-making capabilities.[13]

Attrition in application. Indeed, when attrition warfare is mentioned, many today see visions of WWI battlefields: trenches for hundreds of miles constructed in depth, intermingled wire obstacles, thousands of craters and a landscape as bereft of life as the bodies that cover it. But attrition warfare has not always resulted in stalemate. Examples include Montgomery's defeat of Rommel in 1942, Operation *Drumbeat* by German U-boats off the American coast and the resulting Allied counter in the Battle of the Atlantic. Although destroying the enemy is attrition's aim, destruction's relevance to political aims and military strategy measures its success.

Attrition warfare seeks to fix the adversary at a specific time and space or bring him to a chosen time and space to destroy his forces faster than he can recover the losses. In the "surfaces and gaps" construct, the emphasis shifts to the surfaces, which represent mass that must be destroyed. This method of warfare seeks maximum feasible engagement of an adversary. A general attrition cycle requires discovering opposing force concentrations, fixing those forces and preventing their movement, or displacing them to make them more vulnerable. Overwhelming destructive resources then engage the opposing force in as much depth and simultaneity as resources allow. Destruction comes from direct and indirect lethal fires, as well as nonlethal methods such as electronic and psychological operations.

The tempo of destruction. To "out cycle" an opponent through attrition depends on the ability to produce and place into action more equipment and

Figure 2.
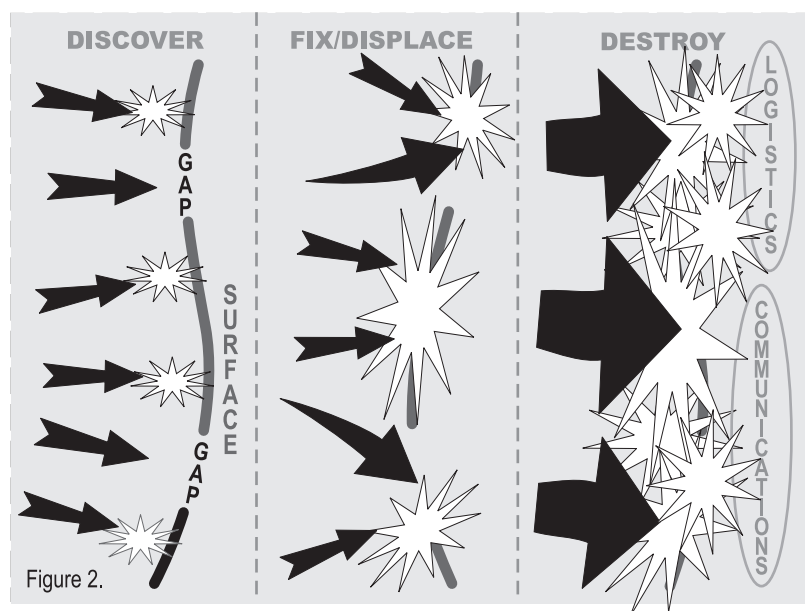
trained people than the enemy can field, while concurrently reducing his capability to recover the destructive effects of battle. New technology in attrition equation can also overcome an adversary. In this regard, the Battle for the Atlantic provides a telling example as the Allies fielded increasingly effective technology and forces, which eventually drove German submarine forces from the zone of operations. However, German U-boats won the initial stages of the struggle for the Atlantic in a classic battle of attrition.

The U-boats sank 187 warships and 4,786 cargo ships with 21 million tons of supplies. During the first four months of 1942 six U-boats sank 137 ships in the Atlantic waters and another 170 ships in the Caribbean area from March to July. To clarify the scale of this destruction, two transports and one tanker lost more materiel than 3000 bombers could have destroyed on the battle field.[14]

From 1939 until 1943 Axis submarines sank over 2000 ships with few losses, but the turning point came in 1943. The Allies sank more submarines that year than in the previous four years of the Atlantic struggle. Improved radar and sonar, increased air cover, additional escort ships and the secrets of Ultra together brought the enemy submarine force to culmination. Eventually, Axis forces would lose 782 submarines and 32,000 submariners in the attrition battle for the Atlantic. Circumstances determine whether or not attrition warfare is an appropriate choice.[15]

Physical Target – Concentrations, Capabilities and Potential

Attrition warfare emphasizes the destruction of the physical potential of war making. Historically, this focus has included a nation's human and industrial resources and supporting structure. Human resources, manifested in strategic and operational leadership, military force concentrations and the

A depth charge explodes astern of the HMS *Starling* in the North Atlantic. The floats on top of the depth charge racks are Foxer decoys for use against acoustic homing torpedoes.
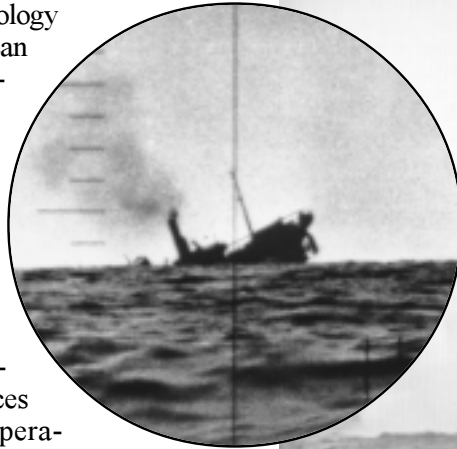
Imperial War Museum, (*Inset*) National Archives

Until increasingly effective technology and forces drove German submarine forces from the zone of operations, U-boats were winning the initial stages of the struggle for the Atlantic in a classic battle of attrition. . . . During the first four months of 1942 six U-boats sank 137 ships in the Atlantic waters and another 170 ships in the Caribbean area from March to July. To clarify the scale of this destruction, two transports and one tanker lost more materiel than 3000 bombers could have destroyed on the battle field.

civilian population, are destroyed or incapacitated either simultaneously or through a sequence that relates to campaign aim. Industrial capacity is likewise paralyzed if not destroyed altogether. Attrition warfare seeks to remove the ability to wage war or break the will of an adversary to continue war, using three primary approaches singularly or together in a gradual or overwhelming way: punishment, denial and decapitation.[16]

Punitive approaches typically orient on the national leadership and the population to shatter

> *Ideally, a precipitous withdrawal leads to the most favorable moment for a maneuver style of war—when the opponent quits the field. Maneuver war concentrates less on enemy intentions and more on those actions desired of him.*

morale and thereby end the war when the adversary sues for peace or the population overthrows the reigning government in favor of peace. Punishment can be weighty and overpowering, such as the strategic bombing of Germany and Japan in WWII, or applied gradually to continue the risk over time, which is well illustrated by the US approach to North Vietnam.[17]

The denial approach focuses on the military forces in the field and their supporting industrial and logistic structure. This approach is characterized by destruction of military forces, their reserves, the transportation systems and the industries producing replacement equipment and materiel. Frequently used elements of this approach are direct support to land forces, interdiction within the battlespace and strategic operations beyond the battlefield. Denial operations have mounted, particularly as precision guided munitions increase the tempo and rate of destruction. It is conceivable that a nation's war-making capabilities could be utterly destroyed so quickly that industrial capabilities would be dislocated because they are not relevant to the decision.[18]

Seeking to destroy the strategic leadership's ability to direct the war effort is a decapitation approach. Isolating key leaders or the entire leadership body from their military forces and the population and destroying their means of communication typify this approach. This counter-leadership method aims at strategic paralysis, shattering the opponent's will to continue or confusing the direction of the war ef-
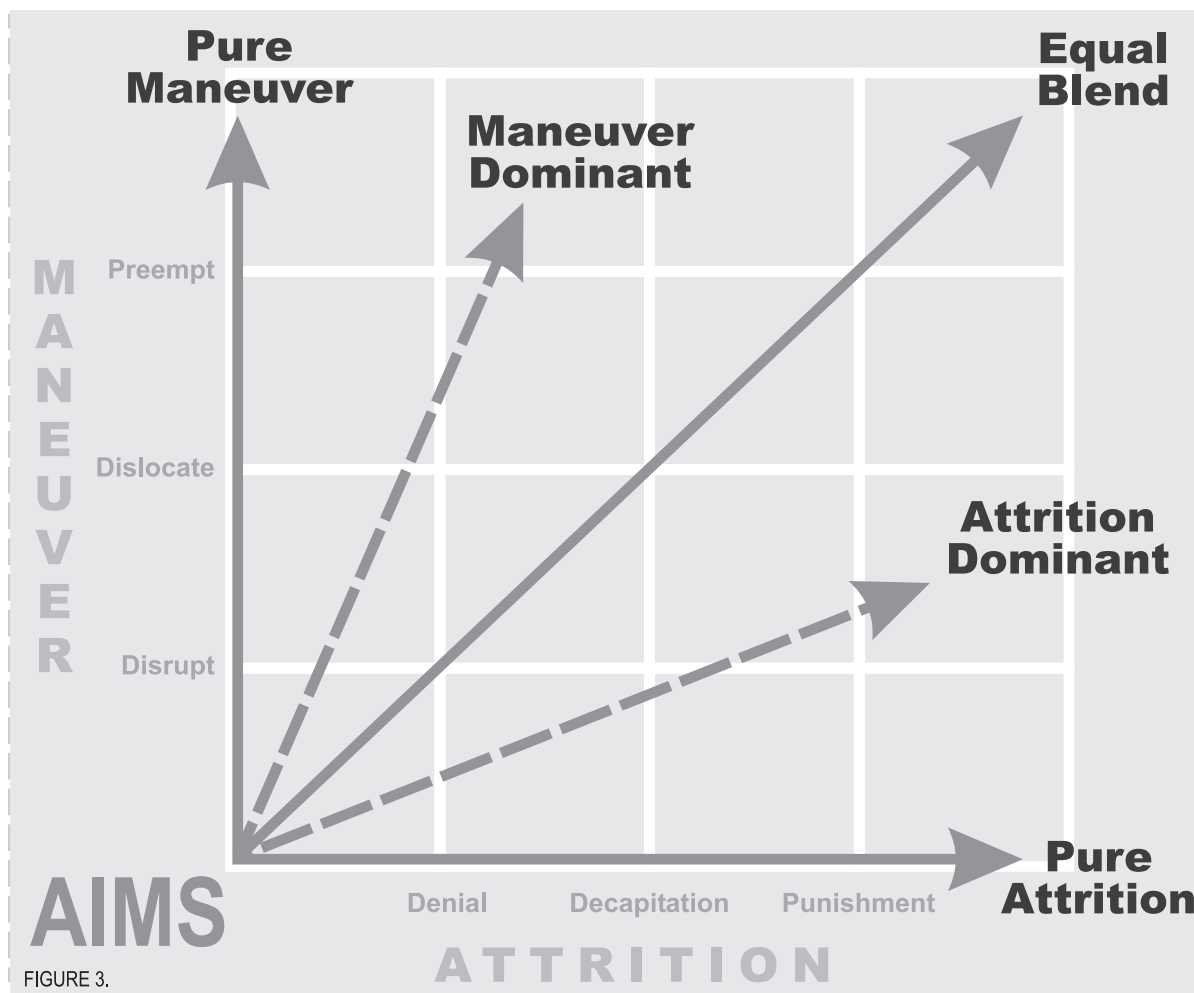

FIGURE 3.

fort to create major vulnerabilities. A well-known example of this stratagem is the death of Admiral Isoroku Yamamoto, one of the more brilliant Japanese strategic leaders, shot down by P-38s over Bougainville in April 1943. Also, the recent decapitation effort against Iraq in 1991 destroyed 44 strategic and operational leadership facilities and 156 communications sites.[19]

Blending for Harmony

A harmoniously integrated whole *blends* the strengths found within both forms of warfare (see Figure 3). Each must be allowed to govern the campaign as necessary, based upon the situation, the strategic and operational aims and the advantages the chosen method of warfare offers relative to those aims. Maneuver without the facilitating benefit of firepower devolves into movement with drastically reduced moral and psychological impact; an impact that maneuver seeks and upon which its success depends. Likewise, attrition through lethal and non-lethal abilities without the direct moral, psychological and physical threat of maneuvering forces is rarely decisive. Attrition targets an opponent's physical mass, but its destruction does not always equate to defeat. The choices must be rational, not based on a favorite method or weapon but on the method's merits relative to the circumstances.

> *Both forms of warfare must be allowed to govern the campaign as necessary based upon the situation, the strategic and operational aims and the advantages the chosen method of warfare offers relative to those aims. Maneuver without the facilitating benefit of firepower devolves into movement with drastically reduced moral and psychological impact. Likewise, attrition without the direct moral, psychological and physical threat of maneuvering forces is rarely decisive.*

Integrating both forms maximizes synergy and overall effectiveness. When surfaces *and* gaps are appropriately attacked, and the adversary suffers the effects in mind *and* body. Rational choices can be made concerning the predominant method. The perfectly equal balance of maneuver and attrition is unlikely, but scale features of both forms could logically be chosen with one form being predominant for an entire campaign or phase of an endeavor. As Sun Tzu so eloquently pointed out centuries ago, the two forms of warfare are not exclusive but infinitely complementary. Even though "it takes two to tango," for harmony and balance, someone has to lead. **MR**

NOTES

1. David J. Andre, "The Art of War-Past, Present, Future," *Joint Forces Quarterly* (Autumn 1995), 125 -126; and Martin van Creveld, Kenneth S. Brower and Steven L. Canby, *Airpower and Maneuver Warfare* (Air War College, Maxwell Air Force Base, Alabama, 1994), 226.

2. Crane Brinton, Gordon A. Craig and Felix Gilbert, ed. Edward M. Earle, *Makers of Modern Strategy* (Princeton, NJ: Princeton University Press, 1973), 87; *Sun Tzu, The Art of War* (Mechanicsburg, PA: Stackpole Books, 1987), 15-40; and Baron De Jomini, trans. CPT G.H. Mendell and LT W.P. Craighill, *The Art of War* (Westport, CN: Greenwood Press Publishers, 1862), 63.

3. Captain B.H. Liddell Hart, "The Man in the Dark Theory of Infantry Tactics and the Expanding Torrent System of Attack," *Journal of the Royal United Service Institute* (February 1921), 13.

4. Richard Hooker, Jr., ed., *Maneuver Warfare an Anthology* (Novato, CA: Presidio Press, 1993), 3-8; and Robert Leonard, *The Art of Maneuver* (Novato, CA: Presidio Press, 1991), 18, 61 and 181.

5. Sun Tzu, *The Art of War*, trans. Ralph D. Sawyer, (Boulder, CO: Westview Press, 1996), 71; Leonard, 48-52; Robert H. Scales, *Firepower in Limited War*, (Novato, CA: Presidio Press, 1995), 238.

6. Leonard, 16 and 51; Van Creveld, Brower, Canby, 3-4; and COL Trevor N. Dupuy, *Understanding War - History and Theory of Combat* (New York: Paragon House Publishers, 1987), 150 -161.

7. Hooker, 9; Leonard, 16 and 58; and Van Creveld, Brower, Canby, 3-4, 238.

8. Leonard, 19-20, 28-30; and Hooker, 144.

9. COL Ardant Du Picq, *Battle Studies, Ancient and Modern Battle*, trans. COL John N. Greely and MAJ Robert C. Cotton (Harrisburg, PA: Military Service Publishing Co., 1946), 124.

10. R. Ernest Dupuy and Trevor N. Dupuy, *The Encyclopedia of Military History*, (New York: Harper & Row Publishers, 1986), 1110 and 1111, 1057 thru 1059, 1146 and 1147, 1179; and Leonard, 66-68.

11. Leonard, 73-76.

12. COL Trevor N. Dupuy, *Attrition: Forecasting Battle Casualties and Equipment Losses in Modern War* (Falls Church, VA: Nova Publications, 1995), 71-77.

13. Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. (Princeton, NJ: Princeton University Press, 1976), 258 and 577.

14. Eric Larrabee, *Commander In Chief* (New York: Simon & Schuster, Inc., 1987), 175-182.

15. James F. Dunnigan and Albert A. Nofi, *Dirty Little Secrets of World War II* (William Marrow and Co., Inc., 1994), 271. The information found within Figure 1 associated with this paragraph also comes from the work of Dunnigan and Nofi.

16. Robert A. Pape, *Bombing to Win-Air Power and Coercion in War* (Ithaca, NY: Cornell University Press, 1996), 58-86.

17. Ibid, 58-66.

18. Ibid, 69-78.

19. Ibid, 79-85; and Clayton James, *The Years of MacArthur*, Volume 11, 1941-1945 (Boston, MA: Houghton Mifflin Co., 1975), 321.

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Revamping Close Air Support

David M. Keithly

WITH THE US ARMY about to update Field Manual (FM) 100-5, *Operations*, and the US Navy in the process of developing its formal written doctrine, now is the time to rethink close air support (CAS). This is the time to clarify joint and service doctrine, which are not attuned with one another and must be brought into harmony.[1] Considerable doctrinal ambiguity and fundamental misconceptions about CAS persist.[2] The former chief of the Air Force's Current Doctrine Division and co-author of Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, recapitulated the widely held Air Force notion of CAS in the November 1992 edition of *Military Review*: "Although CAS is considered the least effective application of aerospace forces, at times it may be the most critical in ensuring the success or survival of surface forces."[3] By contrast, the 1994 Air Force publication *Presentation to the Commission on Roles and Missions of the Armed Forces* depicted "a declining need for CAS," promoting "the elimination of CAS as a primary responsibility for the Air Force and Navy."[4] The *Roles and Missions* volume underscored the Air Force ambition to cast off its "full close air support capability."[5]

Does CAS represent a pivotal mission or not? Apparently, the Air Force is unsure. In the 1960s, Defense Secretary Robert McNamara, exasperated that the Air Force paid what he thought mere lip service to close air support, threatened to terminate the Air Force's CAS assignment altogether.[6] Piqued by the prospect of losing a mission, even one that had in practice become ancillary, the Air Force, in an effort to accommodate the secretary, accepted the Navy's A-7 project to develop a basic, relatively inexpensive aircraft designed primarily to support ground forces. Several voices at the time championed new CAS doctrine.[7] Little actually happened.

The United States cannot afford discord and lingering misconceptions about such an important operational task. With technology enlarging capabilities prodigiously, even exponentially, it seems ironic that some old debates recur.[8] And how are ground forces

> *The US services continue to speak of merely "supporting" ground forces. Does it really matter whether aircraft are supporting the ground forces or participating in the ground battle? The difference is one of semantics.*

to regard the disharmony associated with close air support? Regrettably, precisely the way one Marine engineer officer did when he wrote, "In other words, if the Army and the Marines would avoid combat and stay out of there, the Air Force would not have to waste its aerospace forces in an ineffective manner."[9] Targeting the Navy, the same officer chided Rear Admiral Arthur Cebrowski for saying that "when talking about aircraft that cost as much as they do and an inventory as small as it can get, those are . . . precious commodities, and they're not going to be squandered just because some fellow calls for fire and wants to see that particular aircraft doing a profile that he read about in some book years ago."[10]

Such interservice bickering about CAS is not new and has long since become tiresome. It echoes British army fault-finding early in World War II when troops stranded on the beaches of Dunkirk were dive-bombed while the Royal Air Force (RAF) was nowhere in sight—fighting beyond where the troops could see the aircraft. Such unpleasant memories die hard because the issues are emotion laden and politically charged. British troops felt they had been left in the lurch by the RAF and harbored resentments throughout the war.[11]

The upshot of service apprehensions in the United States has been perennial: unfading misgivings; ground forces safeguarding organic air assets; the Marines' practice of assigning an air squadron to each corps as the best method to achieve integration of air and ground fire. Services desire "their own aircraft" for troops' confidence, commanders' convenience and artillery's supplement. The Marine position has been perhaps the most telling—namely, that since Marines fight as a team, they should deploy as a team, which includes maintaining organic close air support. The logical implication is that US forces either fail to, or at least cannot be entrusted to, fight as a team. Unspoken recriminations can hardly inspire the American taxpayers with confidence. The 1993 Chairman of the Joint Chiefs of Staff *Report on the Roles, Missions, and Functions* asserted that "perhaps no aspect of roles and missions has spawned more debate since the Key West Agreement than the question of close air support."[12] The debate over CAS became stormy once again in early 1995, precipitated primarily by Air Force Chief of Staff Merrill A. McPeak's suggestion that the Army assume the CAS mission.[13]

Why should issues associated with CAS continue to be so prickly? Do the services really want to admit, however tacitly, that a seminal quandary involving interservice rivalry dating back to World War II persists? Not alleviating associated problems is inviting yet additional frictions in joint operations. The all-service commitment to fight jointly requires compromise on CAS issues. As in any compromise, each must yield on something, but in this instance all stand to gain. Technological development and doctrinal evolution offer a remedy to recurring CAS ills and this article provides a framework. A critical reexamination of CAS must address the following questions: What is CAS? Why new doctrine? What weapons platforms are to be included? Who is to command and control?

What is CAS?

The 1948 *Key West Agreement on Service Roles and Missions* defined CAS as "air action against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces."[14] "Air action against hostile targets" in 1948 and for many years thereafter involved fixed-wing aircraft. Modern air action can involve any one of a number of platforms or vehicles, including, above all, helicopters. Yet, service doctrine

does not adequately reflect such technological change. Attesting to the growing capability of helicopters, observers over the past decade have advocated their doctrinal inclusion as CAS aircraft. Indeed, the 1993 *Report on Roles, Missions, and Functions* stated, "Today's highly capable attack helicopters can provide timely and accurate fire support to ground troops engaged in battle . . . While

> *The Marine position on air assets has been perhaps the most telling—namely, that since Marines fight as a team, they should deploy as a team, which includes maintaining organic close air support. What are the logical implications? That US forces either fail to, or at least cannot be entrusted to fight as a team.*

this robust capability in fact adds to the close air support fight, it has never been recognized in the CAS definition and is not embedded in service doctrine."[15] The joint doctrinal publication JP 3-09.3, *Joint Tactics, Techniques, and Procedures for Close Air Support*, issued in early 1996, contains two sections devoted to discussions of rotary-wing CAS.[16]

Only service parochialism prevents assigning helicopters a major CAS role. Resistance to such inclusion in the CAS mission originates with the ground forces and coalesces around an unwillingness to relinquish control of helicopters as organic ground maneuver units.[17]

Ground troops' concern about air attack in forward areas is understandable. Believing that somehow "their own airmen" can be called in like artillery fire may seem comforting, but the reluctance to designate attack helicopters as potential CAS assets perpetuates something of a sham. Senior Army generals emphasize that helicopters can be, and in fact are, employed for CAS. For example, General Frederick Franks, commander of the US VII Corps during the Gulf War, wrote that "attack helicopters were counted on for the closest of the CAS (in the Gulf War), since their ability to maneuver and keep close contact with ground forces made them the most suitable for attacking targets closest to the front lines."[18] While wholly persuasive, this position is not yet anchored in Army doctrine. Nor do the services always concur on the facets of the mission.

Why the confusion? The definitional and substantive ambiguities actually predate Air Force autonomy in 1947. Before the Korean War, what the Air Force termed "close air support" the Marines

and Navy considered "deep support."[19] Close troop support in the Air Force perception would be furnished primarily with artillery and rockets—

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Army assets for the most part. The interface problem has lingered ever since.

For its part, the Marine Corps defines CAS as "effective air action against hostile targets located close to friendly forces . . . like close-in Fire Support, CAS requires detailed integration with a friendly ground force's fire and maneuver."[20] What, though, does *close* mean in this context? The services have not always been able to agree on that either. Franks described fixed-wing CAS as extending out some 40 miles from the front lines, an uncommon depiction, certainly by Marine criteria and even by the Army's.[21] The Air Force would characterize this as an interdiction mission.

Why New Doctrine?

Doctrine might be defined as a body of theory that "describes the environment within which the Armed Forces of a state must operate and prescribes the methods and circumstances of their employment."[22] Doctrine is intended to foster likemindedness and military effectiveness; doctrinal provisions are generalizations gleaned from past experiences about what functions well.[23] To a certain extent, lingering confusion about CAS might reflect the misuse of the very concept of doctrine.

CAS doctrine should clarify how the main principles of air warfare apply in this specific instance and delineate the chief missions of CAS. This done, doctrine should be geared to resolving the remaining issues of CAS. Generalization is, of course, always a somewhat risky proposition, especially if one overgeneralizes about isolated historical incidents. Most observers would suggest, however, that principles of air warfare are largely timeless, notwithstanding technological and scientific developments. These enduring principles are maintenance of of-

fensive power, concentration of force and protection of base.

The dual aspect of the first two bespeaks the distinctiveness of CAS operations: offensive power and force concentration involve not only the air operations themselves but also the contribution they make to the ground operations. With respect to the first, CAS should provide ground forces crucial security from air attack, especially during offensive operations. But it is also intended to thwart and disrupt enemy counterattacks, allowing one's own side to retain the initiative. With respect to concentration, CAS aircraft should focus maximum pressure on the enemy. At the same time, the security accorded by CAS permits the concentration of friendly ground forces for offensive operations.

With respect to mission, tactical air forces generally are intended to foster a battlespace advantage and protect vital supply lines. Every CAS mission must be closely integrated with the fire and movement of those supported ground forces to furnish overhead security and allowing land forces greater freedom to maneuver and fight. The argument here to reorient assets presupposes reoriented tactics, which is a call for doctrinal change. Service doctrine must be brought in line with joint doctrine, and with respect to CAS, the discrepancy is glaring. Joint Publication 1-02, **DOD** *Dictionary of Military and Associated Terms*, defines CAS as "air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces." This definition makes specific reference to attack helicopters, while service doctrine still does not. Joint doctrine fails to resolve a number of salient issues, for example, those regarding command and control or mission category. Joint Publication 3-56.1, *Command and Control for Joint Air Operations*, specifies that joint CAS is conducted through joint air operations or, in the case of rotary-wing aircraft, through the "establishment of a command relationship between components," a vague description.

So what is to be done from a doctrinal standpoint? Doctrine should reflect the realities of the modern, joint battlefield, not the realities of inside-the-Beltway politics. Despairing in the wake of current contention, one observer quipped: "You can't divvy up the battlespace and have union cards saying I can do only CAS or deep strike."[24] Another, criticizing recent tactical "deep strike" proposals whereby land forces would fight up to the Fire Support Coordination Line (FSCL) and air forces would control

A 75th Fighter Squadron A-10 in joint air attack operations with a 229th Aviation Brigade Apache, Fort Bragg, North Carolina.

what lies beyond, asserted: "this is segregation, not joint operations."[25]

Capable of multifaceted deployment and three-dimension mobility, aircraft offer considerable mission flexibility. The maneuverability, speed and range of aircraft permit them to engage targets other supporting weapon systems cannot and duplicating CAS efforts helps ensure their success.[26] Few serious observers would challenge the *Roles, Missions and Functions* assertion that troops locked in combat with the enemy must receive all the fire support they need. Deciding who provides CAS must be kept separate, insofar as possible, from which type of aircraft. As odd as it may sound in some corners, each service should retain a CAS mission despite diminishing resources.

Indeed, the Joint Chiefs' 1989 *Roles and Functions of the Armed Forces* and the 1993 *Roles, Mission, and Functions* endorse this notion, designating CAS as a primary mission of all services.[27] Such retention presupposes that the Army and Air Force train jointly, coordinate their efforts and ascertain what resources are best devoted to the CAS mission. A careful review of Navy and Marine aircraft with virtually identical missions, such as the F/A-18, might be in order but should not automatically lead to a reduction in force. Here also, joint training emphasis will provide a broader picture of the battlespace and help earmark assets for close air support.

Although the presence of several air forces in the same battlespace has caused organizational problems in the past and presents a potential difficulty in the future, joint training and likemindedness about warfighting should overcome major difficulties. In a joint operation, aircraft should be placed under the control of a Joint Force Air Component Commander (JFACC), above all because such command would facilitate decisions regarding air tasking prioritization by those who understand air power.[28] A habitual concern is that joint and service duties are too demanding for one individual or one headquarters.[29] This, of course, is scarcely a new problem, and technological advancement is not making command tasks any easier. But the advantage of the JFACC position in close air support is that the designated individual is a specialist in air operations. Interpreting current trends, Martin van Creveld believes that air assets should no longer be grouped into a separate service but increasingly revert back to sea and land services.[30]

Those service relationships can help refute the charge, right or wrong, that an aviator in an airplane does not easily grasp the logic of a landscape be-

Ground troops' concern about air attack in forward areas is understandable; believing that somehow "their own airmen" can be called in like artillery fire may seem comforting, still the reluctance to designate attack helicopters as potential CAS assets perpetuates something of a sham. Senior Army generals emphasize that helicopters can be, and, in fact are, employed for CAS.

neath him.[31] For example, Marine aviation close air support has on occasion "embarrassed" the Air Force.[32] Because all Marine aviators are part of a spirited team in which everyone is a rifleman first, they tend to have, and are perceived by ground troops to have, more empathy for ground forces. A modicum of competition might contribute to a broader sense of mission, while troops on the ground maintain a certain psychological edge by knowing "their" aviators are furnishing support.

And since all services have experience with CAS, each presumably would bring something to the table. Joint Pub 3-09.3 discusses this latter point.[33]

What Platforms?

Far and away the most important question under this heading: Is close air support by fast, high-performance aircraft still necessary in the era of precision-guided munitions? Not usually. High-performance fixed-wing aircraft and their highly trained crews are

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generally considered too valuable to be employed as CAS assets. Fighters designed for speed have smaller payloads than ground-attack aircraft, and few are equipped with the precision- guided munitions that constitute the most effective close air support instruments. Moreover, their use in CAS is a highly inefficient use of scarce defense resources. For example, during the Persian Gulf War, fully 70 percent of Marine aircraft sorties were flown as CAS. Later analysis indicated that merely 14 percent of these sorties were flown short of the Fire Support Coordination Line (FSCL), and an even smaller percentage was flown against targets close to friendly forces.[34] Hence, the quantity of genuine CAS sorties was remarkably low in comparison to the number of other missions flown by fast fixed-wing aircraft.[35]

This is by no means to discount the role of CAS, nor is it to belittle the ground forces by implying they should somehow miraculously stay out of harm's way. Neither is it to assume the drastic and controversial position of the former Air Force chief of staff who wished to shed the CAS mission altogether and recommended that the Army shoulder it. It is, rather, to acknowledge that doctrine must reflect technological development in a several-fold sense. Helicopters can provide timely and accurate fire support to ground troops, although the relative contributions of fixed- and rotary-wing assets have yet to be sufficiently analyzed. Although beyond

the scope of the discussion here, this issue requires additional analysis. What are to be the criteria of acceptability?

Given the capability of modern air defenses, using fixed-wing aircraft for ground-operations support entails risk far too great in most cases. High-performance aircraft are scarce, expensive, and, above all, essential to interdiction missions. Some argue that the only real mission of fast fixed-wing aircraft is to fight other such aircraft; van Creveld has gone so far as to suggest that maintaining a force of super-expensive machines to give battle to other similar machines makes no sense.[36] On the forward edge of the battlespace where enemy air defenses are potent and alerted, conditions are trying for these aircraft. Over one-third of coalition fixed-wing aircraft lost in the Gulf War were engaged in CAS or an affiliated mission.[37]

Worse, the short loiter times of high-performance aircraft leave troops unsheltered for extended periods so doctrine should focus on the most efficient use of the entire inventory of potential assets. Few aircraft can be earmarked permanently for a particular role; indeed, an advantage of any aircraft is its mission flexibility.[38] Fixed-wing aircraft may need to be employed as CAS assets in certain contingencies.

By failing to correct procedural uncertainties and differences in command and control, the United States is not playing to its strong suit—technological superiority. Resisting battlespace command centralization of highly capable rotary-wing assets precludes their most efficacious employment. Technological advancement in other areas—surface-to-surface missiles, vertical/short take-off and landing (VSTOL) aircraft has allowed their more effective use very close to friendly ground forces.[39] VSTOL aircraft can furnish close support to the ground troops and have the added advantage of serving in an interceptor role as well. Able to operate from both carriers and temporary landing fields on shore, they can respond to requests for close air support in a relatively short time, usually much sooner than conventional aircraft. The cost of such forward deployment with the ensuing rapid response time takes the form of relatively small engines and light airframes, which in turn translates into less ordnance. Of course, VSTOL aircraft are expensive assets also, necessitating circumspection about their employment near the FSCL.

In a sense, then, we are encountering what would seem to be an irresistible combination of principle and pragmatism. Designating high-performance

McDonnell Douglas

An F-15 Eagle taxies prior to takeoff with an atypical load of general purpose bombs.

High-performance fixed-wing aircraft and their highly trained crews are generally considered too valuable to be employed as CAS assets. Fighters designed for speed have smaller payloads than ground-attack aircraft, and few are equipped with the precision-guided munitions that constitute the most effective close air support instruments. Moreover, their use in CAS is a highly inefficient use of scarce defense resources.

fixed-wing aircraft as CAS assets frequently entails injudicious risk—which is largely unnecessary since other far less costly systems can perform the same missions. The logic seems almost incontrovertible.

Yet the current episodes of the CAS controversy produce an uncomfortable sense of *deja vu.* Over the years, the Air Force has been criticized for neglecting CAS in training, doctrine and weapon systems development. One DOD official remarked somewhat off the cuff that the service "just has not been paying attention to this mission."[40] The Air Force has now slotted the F-16 as its chief CAS platform for the future.[41] The F-16 was designed as a fast, lightweight fighter and only later assigned a ground-attack mission. Reassessing the hardware is crucial. Basic, relatively slow fixed-wing aircraft still have considerable utility—the oft-disparaged

A-10 "Warthog" is a case in point. This survivable "armor buster" fared well in the Gulf War and will soldier on in the new century as a CAS platform. Unfortunately, no follow-on to the A-10 is planned, even though the search for a replacement platform began in the mid-1980s.[42]

The 1960s' initiative to acquire the A-10 came from the Army. The Air Force was never receptive to building the A-10 because its "sluggishness" and want of true air-to-air capability were fatal flaws in Air Force eyes.[43] In the 1980s, Air Force Secretary Verne Orr realized his service was keen on new fighter development but avoiding the requirement to replace the A-10 and maintain the attendant mission, he stipulated that "until the Air Force makes good on its promise to provide the Army with close air support . . . the advanced tactical fighter (ATF) will be relegated to the bottom of the service's list

of tactical priorities."[44]

The A-10 has a proven track record of close air support. Sluggishness renders it more vulnerable, but for the CAS mission, lengthy loiter time argu-

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By failing to correct procedural uncertainties and differences in command and control, the United States is not playing to its strong suit—technological superiority. Resisting battlespace command centralization of highly capable rotary-wing assets precludes their most efficacious employment

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ably far outweighs this drawback. Although it is not a fighter-interceptor, it is a jet aircraft of unique design.[45] To improve survivability from ground fire, it has redundant, armor-protected flight control systems in the wings and tail unit. It features a bullet-proof windscreen and a titanium cockpit area capable of withstanding 23mm hits. Its dual engines are spaced apart and set high on the rear of the fuselage, significantly improving the chances of maintaining power even after severe airframe damage.[46]

Likewise, the case for helicopters as such would seem to be made. Employed in a particular mode, helicopters have functioned as CAS platforms in all but service doctrine for some years. Overcoming the current doctrinal impasse while integrating pertinent past lessons of air warfare is instrumental to preparing for what Paul Bracken refers to as the "military after next."[47] Follow-on systems will offer new operational possibilities, probably in line with Admiral Arthur Cebrowski's recent counsel that the military start finding ways to provide close air support with something other than manned aircraft.[48] Remotely Piloted Vehicles (RPVs), operating in conjunction with sensors and satellites, will likely be prominent in the future battlespace, and future guidance technology will permit precision strikes from considerable stand-off distances.[49] Doctrine should help envision and operate in that future battlespace.

Today's misunderstanding of CAS might be so widespread, or perhaps the associated issues so laden with political baggage, that at least one fairly straightforward point has been lost: helicopters' psychological effect on both friendly and enemy forces.[50] Their visible, sustained presence, often more palpable because of prolonged loiter time,

should assuage ground forces' immutable fear of being deserted by their own air forces and left to the mercies of hostile aircraft. Helicopters, conceivably in conjunction with evolving unmanned systems, could provide support to ground forces akin to the proverbial "cab rank" (allied system for forward air support that enabled ground-based units to call up attack aircraft on short notice). True, soldiers may fear that helicopters would be redeployed to another area by the central command, but Marines might harbor less concern about attack aircraft being unavailable at crucial moments.[51] On the other hand, though, helicopters have the distinct ability to hover and can use unimproved facilities far forward in the battle area. The psychological effect upon enemy forces represents the other side of the equation. The lingering presence of friendly rotary-wing aircraft underscores the commitment and ability to integrate air missions with the movement and fire of the ground forces.

Who Should Command and Control?

Land, sea and air engagement invariably prompts another crucial question: Who is in charge?[52] Messages about apportionment and allocation in previous conflicts must be captured. During both World War II and Korea, forces intheater usually agreed that the joint task force (JTF) commander, advised by the effective air component commander, would decide virtually every day what amounts of available aircraft would be used for close air support, interdiction and air superiority.[53] This apportionment and allocation procedure usually accorded maximum protection to all engaged forces and offered the best possibility of accomplishing the mission. While aircraft were reallocated according to the decisions of the JTF commander, airmen maintained centralized control of air assets, while the overall commander, who presumably had the best picture of the battlespace, determined how to use aircraft most effectively. With the ground commanders involved in decision-making, troops received some assurance that air protection would be provided.[54]

This model for close air support might be employed in revitalized form, as JP 3-09.3 implies. Aircraft performing CAS, to include helicopters, should be placed under the centralized control of the JFACC, who provides advice and is directly responsible to the Joint Force Commander (JFC). The *Roles and Missions* Commissions largely skirted these and associated issues, although better guidance is now furnished in JP 3-09.3. This 1995 joint doc-

trinal publication represents a major step in the right direction, but doctrine does not adequately reflect all the time-tested apportionment and allocation procedures described above. Both service and joint doctrine should do this.

Two major drawbacks stem from maintaining systems that perform close air support as inherently organic to ground units. First, without JFACC control, these assets could remain idle in times of genuine need in particular sectors of the battlespace. Second, and what is in fact the other side of the same coin, they may be overused by ground units fearing air attack or overestimating an air threat. Centralized CAS control, exercised initially through the JFACC, but ultimately through the JFC, as was often demonstrated in World War II, alleviates such difficulties in the main. Presumably the JFC has the most complete picture of the battlespace, and he determines crucial target priorities. Unless the operation dictates otherwise, maintaining the fighting edge in the overall battlespace plainly supersedes an advantage in any one sector. Alluding to this point, joint doctrine now states that "the JFC provides guidance on intent and vision with respect to the use of air assets to support the campaign plan."[55]

Much can be said for this stratagem of reallocation and apportionment. The 1995 joint publication on CAS would seem to be clear on the following matter: "The amount of air support that will be dedicated to joint CAS is decided by the JFC in the air apportionment decision."[56] Although each service might have to yield on particular points, all concerned parties stand to gain by rectifying a festering problem. Above all, the proposal offers to rescue CAS from being an orphan in the roles and missions debate.[57] As recently as 1995, just before the release of JP 3-09.3, and two years after the *Report on Roles, Missions, and Functions* designated CAS as a primary mission area for all services, the Air Force still urged the Army to assume the CAS role. The Army, averse to take on "new" missions, shied away.

Intermittently, both services have been inclined to criticize the Marines for maintaining a duplicate air force to provide their own CAS. This renewed debate strengthened Marine suspicions that the other services would leave them in the lurch, further strengthening the time-honored Marine dictum that "forces fighting as a team should deploy as a team." Marines note that the system broke down miserably in Vietnam, with the Air Force once again unprepared to provide the necessary close air support to

US Air Force

A "murderers' row" of Warthogs at an Air Force Base in Europe.

The oft-disparaged A-10 "Warthog" fared well in the Gulf War and will soldier on in the new century as a CAS platform. But no follow-on to the A-10 is planned, even though the search for a replacement platform began in the mid-1980s. The 1960s' initiative to acquire the A-10 came from the Army. The Air Force was never receptive to building the A-10 because its "sluggishness" and want of true air-to-air capability were fatal flaws in Air Force eyes.

the troops and the Army continuing to insist that the ground commander should assume operational control of close support aircraft. By the Pentagon's own admission, doctrinal differences and interservice polemics have significantly contributed to misunderstandings within and outside the military.[58]
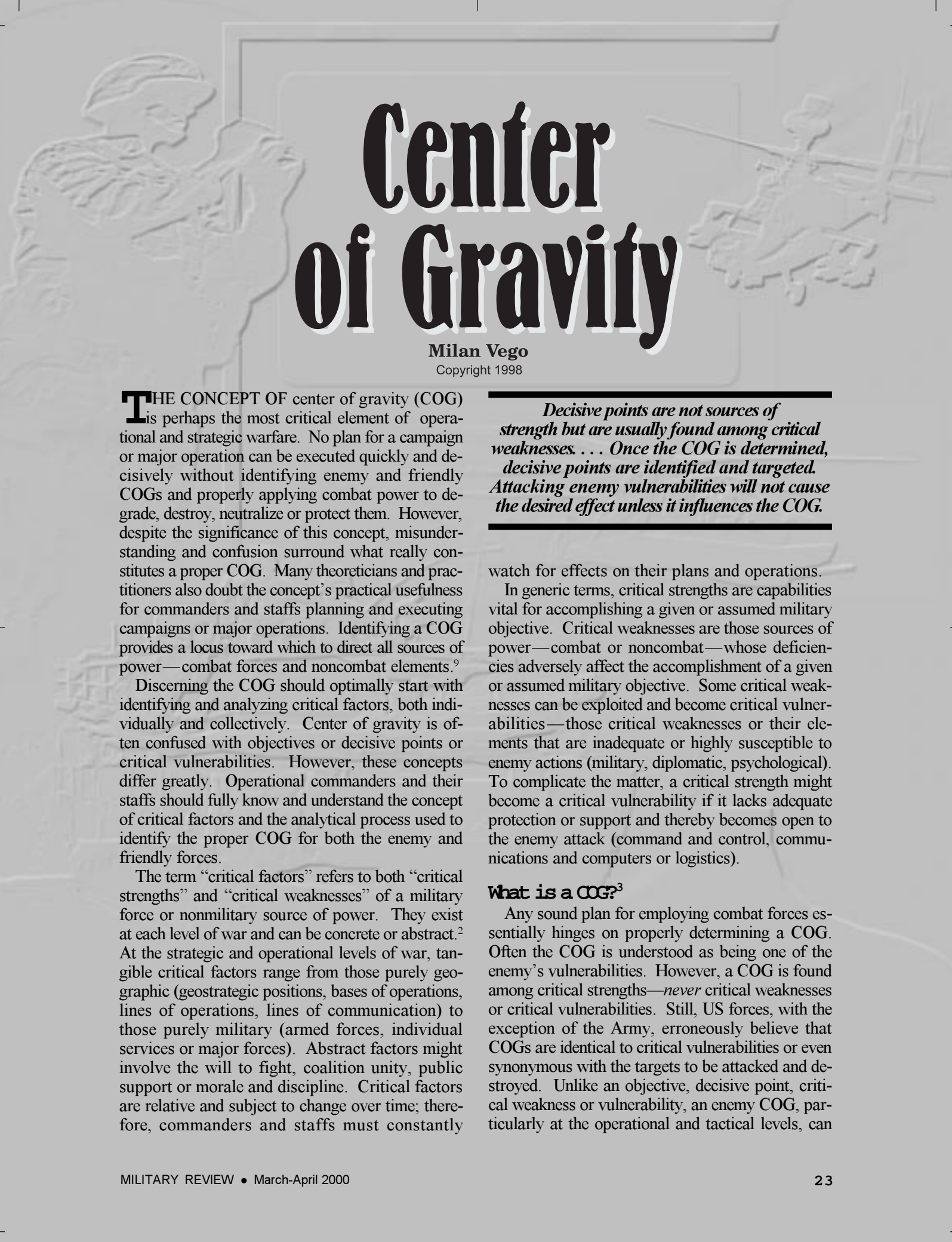
Following the 1973 Arab-Israeli War, Israel changed its air doctrine to specify that the air force should "support the ground forces" to that it should "participate in the ground battle."[59] The US services continue to speak of merely "supporting" ground forces. Does it really matter whether aircraft are *supporting* the ground forces or *participating* in the ground battle? The difference is one of semantics. But since CAS is designated a "primary mission area" for all services, the word "support" has unfortunate connotations for warfighters. Perhaps the next doctrinal step should be to follow the Israeli example. Commanders must have the flexibility to reallocate air assets from one part of the battlespace to another and to reassign them from one mission to another, as circumstances dictate. All doctrine must assure the commander, air components and ground troops optimal CAS. **MR**

NOTES

1. The publication of FM 100-5 in 1993 marked the culmination of a two-year debate during which the Army examined the implications of a new strategic era. See *Military Review* (December 1993). The entire edition is devoted to this keystone doctrine. Discussion of several cardinal issues should begin again.
2. This point is made cogently, although without much tact, by Carlton W. Meyer, "For Guys on the Ground," *Armed Forces Journal* (June 1995), 58-59.
3. Price T. Bingham, "The Air Force's New Doctrine," *Military Review* (November 1992), 18. Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, states: "CAS is the application of aerospace forces in support of the land component commander's objectives. At times, CAS may be the best force available to ensure the success or survival of surface forces. Since it provides direct support to friendly forces in contact, CAS requires close coordination from the theater and component levels to the tactical level of operations.
4. *Presentation to the Commission on Roles and Missions of the Armed Forces*, (Washington, DC: Chief of Staff, US Air Force, 1994), 103.
5. Ibid.
6. Thomas L. McNaugher, *New Weapons Old Politics* (Washington, DC: The Brookings Institution, 1989), 55.
7. For example, Richard G. Head, "Doctrinal Innovation and the A-7 Attack Aircraft Decisions," Richard G. Head and Ervin J. Rokke, eds., *American Defense Policy*, 3rd ed. (Baltimore: Johns Hopkins University Press, 1973), 431-45.
8. Thomas C. Linn, "Joint Operations: The Marine Perspective" *Joint Force Quarterly* (Winter 1995-96), 16.
9. Meyer, "For Guys on the Ground," 58.
10. Quoted in Ibid.
11. Norman L. Dodd, "Close Air Support for the Ground Forces," *Asian Defence Journal*, (June 1985), 22.
12. *Chairman of the Joint Chiefs of Staff Report on the Roles, Missions and Functions of the Armed Forces of the United States* (JCS: Washington, DC, 1993), 111-15.
13. *Aviation Week and Space Technology*, 27 March 1995, 72.
14. *Roles, Missions and Functions of the Armed Forces*, 111-15. A definition paraphrased from several sources, including TACM-2-1, ATP 33, AAFCE Manual 802 would be: "Air attacks requested by the ground commander, against hostile targets which are in close proximity to friendly forces and which need the detailed integration of each air mission with the fire and movement of those forces." See Ian Madelin "What Is Close Air Support? *Armor* (July-August 1980), 18-21.
15. Ibid.
16. Joint Publication 3-09.3, *Joint Tactics, Techniques, and Procedures for Close Air Support* (Washington, DC: JCS, December, 1995), 11-7, IV-22-24.
17. This point was made persuasively by Ray Oden, Robert Harvey and Rich Huntoon in an unpublished manuscript dealing with CAS written in 1995 at the Armed Forces Staff College.
18. *Presentation to the Commission of Roles and Missions of the Armed Forces*, 118.
19. James A. Winnefeld and Dana J. Johnson, *Joint Air Operations* (Annapolis: Naval Institute Press, 1993), 43-44.
20. *Fleet Marine Forces Manual 5-40 Offensive Air Operations* (Washington, DC: Department of the Navy, 1992), 1-2.
21. *Aviation Warfighting Treatise* (Department of the Army: US Army Aviation School, 1993), 18.
22. Gregory Flynn, ed., *Soviet Military Doctrine and Western Policy* (London: Routledge, 1989), 4.
23. I. B. Holley, Jr., "A Retrospective on Close Air Support," Benjamin Franklin Cooling, ed., *Close Air Support*, (Washington, D.C.: Office of Air Force History, 1990), 545.
24. *Aviation Week and Space Technology*, 27 March 1995, 72.
25. Linn, "Joint Operations: The Marine Perspective," 17.
26. For a broader discussion of this point, see the chapter entitled "The Material Bias: Why We Need More Fraud, Waste and Mismanagement," in Edward N. Luttwak, *The Pentagon and the Art of War* (New York: Simon and Schuster, 1985), 130-56. According to Luttwak, "[The] outputs that count in war are very particular and very different from the outputs that count in peacetime, and when civilian notions of efficiency are applied, the difference is routinely overlooked." See also Heike Hasenauer, "Air-Ground School," *Soldiers* (April 1996), 24-27.
27. *Roles and Functions of the Armed Forces: A Report to the Secretary of Defense* (Washington, DC: Joint Chiefs of Staff, 1989), 3; and 1993 *Roles, Missions, and Functions* (Washington, DC: Joint Chiefs of Staff, 1993).
28. Phillip S. Meilinger, *10 Propositions Regarding Air Power* (Washington, DC: Air Force History and Museums Program, 1995), 55; see also Joint Publication 3-09.3, 1-7.
29. See Linn, "Joint Operations: The Marine Perspective," 17.
30. Martin van Creveld, "The Rise and Fall of Air Power," *Military History Quarterly* (Spring 1996), 81.
31. Quoted in Meyer, "For the Guys on the Ground," 58.
32. Holley, "A Retrospective on Close Air Support," 542.
33. Joint Publication 3-09.3, 1-3.
34. *Presentation to the Commission of Roles and Missions of the Armed Forces*, 117.
35. I am indebted to an Armed Forces Staff College Study group led by Ray Oden for this observation. See also *Presentation to the Commission of Roles and Missions of the Armed Forces*, 117.
36. Van Creveld, "The Rise and Fall of Air Power," 81.
37. Meyer, "For Guys on the Ground," 58.
38. See Meilinger, *10 Propositions Regarding Air Power*, 28-38.
39. For a discussion, see Bruce Myles, *Jump Jet* (San Rafael, CA: Presidio Press, 1978), 159-184.
40. Quoted in McNaugher, *New Weapons Old Politics*, 147.
41. See for example *Presentation to the Commission of Roles and Missions of the Armed Forces*, 109.
42. McNaugher, *New Weapons Old Politics*, 147.
43. Meyer, "For the Guys on the Ground," 59.
44. Quoted in McNaugher, *New Weapons Old Politics*, 147.
45. See Tom Gervasi, *Arsenal of Democracy* (New York: Grove Press, 1977), 48-49.
46. For a detailed description, see Jane's *All the World's Aircraft 1983-84* (London: Jane's Publishing Group, 1984), 375-76.
47. Paul Bracken, "The Military After Next," *The Washington Quarterly* (Autumn 1993), 157-74. This article promotes the use of a new concept, "the military after next," reflecting fundamental changes in the nature of warfare and the security environment.
48. Meyer, "For the Guys on the Ground," 58.
49. See Thomas G. Mahnken, "War in the Information Age," *Joint Force Quarterly*, (Winter 1995-96), 40.
50. One example of such political baggage is to be found in the Air Force's discomfort in the early 1960s when the Army began a program to arm its fixed-wing Mohawk aircraft with bombracks and machineguns. The Air Force insisted the Army stay out of the aerial fire support business. See Robert H. Scales, Jr., *Firepower in Limited War* (Washington, DC: National Defense University Press, 1993), 20.
51. Meyer expresses what is probably a widely-held Marine concern in "For the Guys on the Ground," 58. The implications for rotary-wing aircraft seem to escape him, though.
52. Linn, "Joint Operations: The Marine Perspective," 16.
53. Holley, "A Retrospective on Close Air Support," 543.
54. Madelin, "What Is Close Air Support?" 21.
55. Joint Publication, 3-09.3, III-1.
56. Ibid.
57. *Aviation Week and Space Technology*, 27 March 1995, 72.
58. *Roles, Missions, and Functions of the Armed Forces*, III-16.
59. Brereton Greenhous, "The Israeli Experience," Cooling, ed., *Close Air Support*, 527.

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Center of Gravity

Milan Vego

THE CONCEPT OF center of gravity (COG) is perhaps the most critical element of operational and strategic warfare. No plan for a campaign or major operation can be executed quickly and decisively without identifying enemy and friendly COGs and properly applying combat power to degrade, destroy, neutralize or protect them. However, despite the significance of this concept, misunderstanding and confusion surround what really constitutes a proper COG. Many theoreticians and practitioners also doubt the concept's practical usefulness for commanders and staffs planning and executing campaigns or major operations. Identifying a COG provides a locus toward which to direct all sources of power—combat forces and noncombat elements.[9]

Discerning the COG should optimally start with identifying and analyzing critical factors, both individually and collectively. Center of gravity is often confused with objectives or decisive points or critical vulnerabilities. However, these concepts differ greatly. Operational commanders and their staffs should fully know and understand the concept of critical factors and the analytical process used to identify the proper COG for both the enemy and friendly forces.

The term "critical factors" refers to both "critical strengths" and "critical weaknesses" of a military force or nonmilitary source of power. They exist at each level of war and can be concrete or abstract.[2] At the strategic and operational levels of war, tangible critical factors range from those purely geographic (geostrategic positions, bases of operations, lines of operations, lines of communication) to those purely military (armed forces, individual services or major forces). Abstract factors might involve the will to fight, coalition unity, public support or morale and discipline. Critical factors are relative and subject to change over time; therefore, commanders and staffs must constantly

> *Decisive points are not sources of strength but are usually found among critical weaknesses. . . . Once the COG is determined, decisive points are identified and targeted. Attacking enemy vulnerabilities will not cause the desired effect unless it influences the COG.*

watch for effects on their plans and operations.

In generic terms, critical strengths are capabilities vital for accomplishing a given or assumed military objective. Critical weaknesses are those sources of power—combat or noncombat—whose deficiencies adversely affect the accomplishment of a given or assumed military objective. Some critical weaknesses can be exploited and become critical vulnerabilities—those critical weaknesses or their elements that are inadequate or highly susceptible to enemy actions (military, diplomatic, psychological). To complicate the matter, a critical strength might become a critical vulnerability if it lacks adequate protection or support and thereby becomes open to the enemy attack (command and control, communications and computers or logistics).

What is a COG?[3]

Any sound plan for employing combat forces essentially hinges on properly determining a COG. Often the COG is understood as being one of the enemy's vulnerabilities. However, a COG is found among critical strengths—*never* critical weaknesses or critical vulnerabilities. Still, US forces, with the exception of the Army, erroneously believe that COGs are identical to critical vulnerabilities or even synonymous with the targets to be attacked and destroyed. Unlike an objective, decisive point, critical weakness or vulnerability, an enemy COG, particularly at the operational and tactical levels, can

physically endanger one's own COG. A COG is also often confused with the military objective to be accomplished. Experience clearly shows that focusing on the objective without identifying and attacking the enemy's COG will invariably result in unnecessary losses of personnel, materiel and

> *The abstract or intangible (sometimes called imponderable) elements of a COG at any level include military leadership, doctrine, morale and discipline. They are difficult to quantify and therefore cannot be estimated with any degree of certainty. The higher the level of war, the more intangible elements fall within the scope of a given COG.*

time—even despite overwhelming combat power. Another error is to confuse a decisive point with the COG. Although closely related, decisive points do not relate to sources of strength but usually to critical weaknesses, which are relevant if they are open to attack and will facilitate an attack on the enemy COG. Once the COG is determined, decisive points are identified and targeted.[4] Yet, attacking enemy vulnerabilities will not cause the desired effect unless it influences the COG.[5]

Most theoreticians attribute the COG concept to the writings of Prussian war philosopher Carl von Clausewitz. While the concept itself is sound and extremely useful, its theoretical underpinnings are somewhat problematic.[6] Clausewitz might have thought in terms of "center of gravity" as we understand it today, but he used the uniquely German term *Schwerpunkt*—the "point of main decision."[7] The meaning of that term has changed considerably since Clauzewitzian days and today is used much more loosely and for many purposes.[8] In military terms, the *Schwerpunkt* designates a theater, area or place where the commander expects a decision.

The main factors in selecting a *Schwerpunkt* include the situation, terrain and commander's intent. In German theory and practice, commanders should "build up" a point of main decision (*Schwerpunktbildung)* within their areas of responsibility. When appropriate, a commander should designate a point of main decision for his subordinate commanders. A change in the situation requires a change or shift in the point of main decision (*Schwerpunktverlegung*).[9] The same term is often used for variety of military and nonmilitary situations to describe where the main focus of effort is or will be.

In generic terms, a COG is that source of leverage or massed strength—physical or moral—whose serious degradation, dislocation, neutralization or destruction will have the most decisive impact on the enemy's or one's own ability to accomplish a given military objective. A COG can be a source of leverage, as for example, in a hostage-taking situation. Then, the hostages themselves, not the terrorists or a state holding them, should be considered the enemy's COG. It is they who are the source of strength—or more accurately, leverage—for a terrorist group or a rogue state.

The concept of mass should not be taken too literally because what counts most is the massed effect, not whether combat power is physically concentrated in a certain area. Because of the long range, lethality and accuracy of air and naval weapons, COGs in air or naval warfare do not necessarily need to be massed in a specific area but may be dispersed throughout a large part of a given theater or area of operations. In contrast, a ground force's COG must usually be massed in a relatively small physical area. Yet, even in land warfare, increases in the speed and range of various platforms allow massing within a larger area of the theater than was possible in World War II.

Composition. A massed effect of power—military or nonmilitary—is the key ingredient for the emergence or existence of a COG at any level of war. The larger and the more diverse the source of power, the more potential COGs. Military sources of power clearly predominate at the operational and tactical levels, while nonmilitary ones are most strongly represented at the national and theater-strategic levels.

The most commonly understood form of military power, combat power, contains an inner core and an outer core. The inner core, where almost the entire "mass" is physically concentrated, encompasses firepower, maneuver and leadership. However, the inner core cannot properly function without other elements that provide support, protection and integration—grouped arbitrarily in the outer core of the COG. There reside critical weaknesses and vulnerabilities, which the opponent can exploit. Protection against such attacks includes air defense, close air support, fire support and operational security. Supporting elements, also called "sustainers" are intelligence and logistics.[10] The integration elements, also called "connectors," link leadership with all other elements of combat power.

Any COG encompasses both physical and abstract elements. In land warfare, physical or tan-

gible COGs can range from an armored or mechanized battalion or regiment to the ground forces as a whole. In naval warfare, a COG can be a direct screen of a convoy, a surface strike group, a maritime action group, a carrier battle group (CVBG) or a major part of a surface fleet, for example. In air warfare, a COG can be that element of a force of combat aircraft having the most significant combat power, such as a fighter or bomber squadron in a fighter/bomber wing, the entire force of fighters in a ground-based air defense or bombers.

The abstract or intangible (sometimes called imponderable) elements of a COG at any level include military leadership, doctrine, morale and discipline. They are difficult to quantify and therefore cannot be estimated with any degree of certainty. The higher the level of war, the more intangible elements fall within the scope of a given COG. Hence, they range from leadership of a tactical-size force to such factors as national or alliance/coalition leadership and the national will to fight. In an alliance or coalition, the COG might consist of the community of interests or common desires that hold the members together.[11] In *Desert Storm* for example, the Iraqis saw the Coalition's cohesion as an intangible element of the strategic COG, while the coalition viewed Saddam Hussein and his inner circle in an analogous role. However, there are instances when the strategic COG can be composed almost entirely of physical elements. This situation can occur in an immature theater of operations that lacks the population base and economic infrastructure to generate intangible elements. During the Solomons Campaign in 1942-43, Allied planners considered the Japanese naval base at Rabaul (New Britain) and the string of airfields in its vicinity as just such a strategic COG.

COGs at the operational and tactical levels of war are almost invariably the mass of the enemy force with the highest mobility and combat power. For example, the operational COGs for both the Allies and the Axis in the North African Campaign, 1940-43, were armored forces. Specifically, Germany's operational COG was not the entire *Panzergruppe Afrika* led by Field Marshal Erwin Rommel, but its *Afrika Korps* (15th and 21st Panzer divisions and the *Afrika* Division—later redesignated as 90th Light Division).[12] For the Germans, the Allied operational COG in the British counteroffensive in November 1941 (Operation *Crusader*) was the 1st and 7th Armored divisions with the additional armored brigades.[13]

In general war, intangible COG elements are usually represented only at the national and theater-

Terrorist-sponsored press conference with hostages, Beirut, Lebanon, June 1985.

Bisson/Collectif, J. B. Pictures

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strategic levels; in a low-intensity conflict they can be found at the tactical level. Rarely in a counterinsurgency would the antigovernment forces mass to constitute a tangible operational COG. In counterinsurgency warfare, the rebel leadership on one side and government legitimacy and public opinion on the other are most likely to be strategic COGs, while each rebel group in the countryside would constitute a potential tactical COG. For example, during the insurgency in El Salvador in the 1980s, the strategic COG for the rebel coalition was the legitimacy of the government itself.[14] In Somalia, the United States erred by becoming involved where its vital interests were not at stake, but the very survival of the Somalian clan leader Mohammed Farrah Aideed was. This dangerously asymmetrical situation allowed Aideed to attack the

US strategic COG indirectly. He challenged the national will to fight by exploiting a US critical vulnerability—aversion to suffering casualties. With no vital interest at stake, the United States could not protect and sustain popular and political support, while Aideed's desire for independent power could be sustained indefinitely.[15]

COG Relationships

COG and Levels of War. In generic terms, a COG exists for a given tactical, operational and strategic military objective to be accomplished. Thus, COGs potentially exist at each level of war. The COG concept becomes more complicated at the

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In general war, intangible elements of the enemy's COG are usually represented only at the national and theater-strategic levels; in a low-intensity conflict they can be found at the tactical level. Rarely in a counterinsurgency would the antigovernment forces mass to constitute a tangible operational COG.

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tactical level, because different and multiple COGs exist at any given time for forces fighting on the ground, in the air and at sea. Because of the potential for many lower-level COGs, the concept's utility at the tactical level is somewhat suspect. Arguably, the concept is more useful for planning at the operational and strategic levels, where their number is small and the effects of improper or untimely identification can be severe.

COG and Objective. Centers of gravity closely relate to objectives; they influence each other and must be in consonance. The operational COGs are linked to both strategic and operational objectives; operational goals and COGs establish the foundation for the selection of tactical objectives and their related COGs. If this inherent linkage to the strategic aim is to dominate the employment of forces in the planning process, operational and tactical considerations begin to determine strategy.[16]

Neutralizing, seriously degrading or defeating a COG at a lower level of war weakens the COG at the next higher level. Defeats in the field usually erode the enemy's will to fight. For example, destruction or neutralization of the Iraqi *Republican Guards* severely weakened both tangible and intangible elements of the Iraqi strategic COG. Likewise, successive defeats of the enemy's tactical COGs will

degrade his operational COG, and by neutralizing or destroying the latter, the ultimate result will be the defeat of his strategic COG.

Any change of the objective at the higher level should invariably lead to the change of the corresponding COG. Accomplishing a military objective at one level of war will invariably affect military objectives and COGs at other levels, and rapidly changing aims or operational objectives can even cause a loss of focus on the COG. The US defense of the Philippines in December 1941 is such an example. *War Plan Orange* projected a six-month defense to delay the Japanese, followed by a withdrawal to Baatan. A potential operational COG was the Japanese invasion force (with ground, air and naval components); however, the focus should have been on the Japanese ground forces once they landed. The fall 1941 buildup of US forces in the Philippines led both General Douglas MacArthur and planners in Washington, DC, to change the strategic aims: MacArthur was to abandon the citadel-type defenses and defend all the Philippine islands and the adjacent waters, cooperate with the Navy in raids against Japanese shipping, conduct air raids and assist in defense of the territories of the Associated Powers. These were considerably different aims from those initially assigned and required shifting the focus and method of US defenses.[17]

Multiple COGs. The number of COGs directly relates to the number of military objectives to be accomplished. Thus, the higher the level of war, the fewer COGs there will be. The higher the level of war, the more drastic the consequences of incorrectly identifying the enemy or friendly COG. At the national level, a single strategic COG usually exists. For instance, the World War II Axis Powers' will to fight and their military-economic strength can be considered their strategic COG. A large theater of war will usually contain several theater-strategic COGs, as was the case in the Pacific Ocean Area and Southwest Pacific Area in World War II. For each theater-strategic objective in these two theaters, a corresponding theater-strategic COG existed. And for each declared or undeclared theater of operations, a single theater-strategic COG existed. Thus, in southern Pacific Ocean areas, the Japanese stronghold at Rabaul on New Britain was the theater-strategic COG, while in an undeclared Philippine theater of operations, the theater-strategic COG comprised the Japanese ground, air and naval forces deployed in and around the Philippines.

The higher the level of war, the more fixed or un-

changeable a given COG is. For example, a strategic COG will change little or very slowly compared with the operational COG. It is a relatively fixed entity throughout the conflict and will change only if the leadership is changed or removed from power or a major part of the military or nonmilitary source of power drastically changes and thereby the enemy's force reemerges as a completely different entity.[18] For example, the strategic COG will shift or change its character if one or more members of an a coalition leave the war or change sides in a conflict.

COGs and Force Employment

Normally, in a campaign, several operational COGs will exist, while in a major operation usually a single operational COG will exist. Regardless of their number, operational COGs in a campaign must be attacked to defeat or neutralize a given theater-strategic COG and attain corresponding operational objectives which cumulatively would accomplish the theater-strategic objective. Each major joint/combined operation in a campaign is usually directed at a specific operational COG. Normally, before launching a ground offensive in a land campaign, a number of operational objectives must be accomplished by air or naval forces.

The primary task of air forces is to obtain and maintain air superiority, which in turn, requires neutralizing or destroying enemy air defnses, specifically fighter aircraft strength—usually the operational COG. Naval forces must gain sea control in a maritime theater or part of it, and for them the enemy's operational COG will be the entire fleet or a major part of its striking forces. In the planned German campaign to invade Britain (*Seeloewe*), the *Luftwaffe* considered the Royal Air Force's Fighter Command as the operational center of gravity. Had the amphibious landing taken place as planned, the *Luftwaffe*'s focus would have shifted to the British mechanized forces defending the beaches or held in operational reserve. Likewise, in *Desert Storm*, the Iraqi fighter aircraft and ground-based air defenses were an operational COG for coalition's air forces. For the US and coalition naval forces, the Iraqi surface combatants had the same status.

Not all operational COGs are equally critical for success in a given campaign. Because the outcome of a land campaign hinges on the fate of ground forces, the most important operational COG is the one that comprises the most mobile and powerful enemy forces on the ground. The Iraqi *Re-*

An Iraqi air force command and control bunker targeted for destruction by an F-117 during the Gulf War.

US Air Force

The primary task of air forces is to obtain and maintain air superiority, which in turn, will require neutralizing or destroying enemy air defenses, specifically fighter aircraft strength—usually the operational COG. Naval forces must gain sea control in a maritime theater or part of it, and for them the enemy's operational COG will be the entire fleet or a major part of its striking forces.

publican Guards represented the most important operational COG for all US and coalition forces in *Desert Storm.*

In any campaign, a single operational COG will exist for each successive operational objective. Afterward, the enemy will usually try to mass forces and a new operational COG forms in defense of the next operational objective. If US and coalition forces had, after a short pause, continued their advance into Iraq, a new operational COG would probably have been the remaining *Republican Guard* divisions and the other divisions deployed in the Basrah-Baghdad area. This force was organized into one army corps with seven divisions (three armored, one mechanized infantry and three infantry) with 786 tanks or about 37 percent of all the tanks in the Iraqi army.[19]

Centers of gravity are relative in time and space because they are always found where one's own combat power must be decisively employed. At the operational and tactical levels, both sides in a conflict will usually try to mass their forces and assets

in a given area and time to create decisive superiority. The operational commander and his staff should do everything possible to prevent the enemy from massing his forces, a task as important as defining the enemy's COG.[20]

Absence of the COG. If the enemy's COG is physically concentrated, as were the Iraqi *Republican Guards* in the Gulf War, it is relatively easy to

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In some sectors, multiple tactical COGs must be defeated or neutralized over time to ultimately defeat the enemy's strategic COG. This situation arises in trade warfare (attack against the enemy's and protection of friendly shipping), and escort forces, as a whole, represent the enemy's operational COG. . . . A similar situation usually exists when fighting insurgents.

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identify. However, in some sectors, one's own and friendly forces will require a longer time to accomplish the ultimate military objective because the enemy's operational COG has not yet formed. Then, multiple tactical COGs must be defeated or neutralized over time to ultimately defeat the enemy's strategic COG. This situation arises in trade warfare (attack against the enemy's and protection of friendly shipping), and escort forces, as a whole, represent the enemy's operational COG. These forces never mass in a certain sea or ocean area but split to protect a given convoy or several convoys; the attacker must wear down the defender's COG over time.

A similar situation usually exists when fighting insurgents. Forces opposed to the government normally operate in small groups and use hit-and-run tactics. Since they normally do not operate in large formations, they seldom offer government forces an opportunity to destroy or neutralize them unless they make the mistake of prematurely operating in larger formations as the Yugoslav *Partisans* (guerrillas) did in late 1942. Communist leader Josip Broz-Tito changed tactics from small-scale attacks to large-scale operations by eight newly established "shock" divisions. The Germans took advantage of Tito's error, trapping and decimating his forces.[21]

Operational commanders should always be aware of opponents' ever-changing relative strengths and weaknesses. The mission can change from phase to phase of a major operation or campaign. The

introduction of advanced weapons or a major force into the theater might significantly shift relative capabilities.[22]

Change of the COG. The operational COG can shift to other types of force or change its character over time. A force different from that at the beginning of the hostilities or military action can emerge as the COG because of one's own success in combat. Higher-than-expected attrition, low morale and poor training and a general inability to regenerate combat power might also lead to a shift of the enemy's COG. Once a plan is executed, the situation must be closely monitored and reassessed to detect potential changes or shifts in the enemy COG.[23] For example, in the Leyte operation, US Third Fleet Commander, Admiral William F. Halsey, apparently thought that the most serious threat (the enemy's COG in modern understanding of the term) was posed by Vice Admiral Jisaburo Ozawa's *Main Body* (fast carrier force), not Vice Admiral Kurita's heavy ships of the *First Diversionary Attack Force*. One can argue that perhaps Halsey's obsessive desire for a decisive naval battle against the Japanese aircraft carriers, coupled with purposely vague orders from Admiral Nimitz, clouded his judgment. Nevertheless, Halsey apparently did not sufficiently account for the declining performance of Japanese pilots after the Battle of Midway. By October 1944, Japanese carriers did not represent as large a threat to US forces at Leyte as did Kurita's heavy surface force.

Shift of the COG. The enemy's COG can also shift from one type of force to another with phase changes in a major operation or campaign. This situation usually exists when phases change with the medium in which a force moves or combat is to take place (from sea to shore or from air to ground). In an amphibious landing operation, the defender's COG will likely be the attacker's naval task force (the surface ships with the highest combat power, usually the carrier attack force) assigned as operational cover and support. The amphibious task force at sea cannot threaten an enemy's operational COG on land, but the operational cover force can. Thus, for the defender the primary goal initially is to destroy or neutralize the attacker's operational cover as the Allies did at The Battle of Coral Sea in May 1942. However, once an amphibious force lands successfully, it becomes the COG.

In the Falklands/Malvinas conflict of 1982, the two British carrier forces constituted the proper operational COG prior to landing. Without these car-

riers, no landing could have been conducted by the British. While the loss of the transport *Atlantic Conveyor* on 25 May with its embarked equipment was a serious blow to the British effort, that ship was not a COG but a critical vulnerability. The troops and equipment could be replaced relatively quickly but not the aircraft carriers. After the landing, the British 3 Commando Brigade was the British operational COG. The Argentine operational COG was not surface forces but the land-based air power—specifically the *Exocet*-armed fighter-bombers. After the landing, the Argentine operational COG shifted to the troops defending Port Stanley.

Likewise, in a major airborne operation, such as was the German invasion of Crete (Operation *Merkur*) in May 1944 or the Allied airborne landing at Arnhem (Operation *Market Garden*) in September 1944, a similar shift of COG occurs as in amphibious landing operations. The escorting fighters represent an operational COG prior to the arrival at the landing zone; after the paratroops drop or the helicopters land, the airborne troops on the ground become the operational COG.

The concept of a COG is, besides objective, the

> *The enemy's COG can shift from one type of force to another with phase changes in a major operation or campaign. This situation usually exists when phases change with the medium in which a force moves or combat is to take place (from sea to shore or from air to ground).*

most critical part of any military planning process. Both the objective and the corresponding COG must be properly determined. To confuse the objective with a COG is an error. However, to consider the enemy's vulnerability or decisive point to be a COG is a blunder. The higher the level of war, the more important it is to determine properly both the enemy and friendly COGs. Operational commanders and staffs should thoroughly understand the concept of critical factors and the analytical process to identify the proper COG for both the enemy's and friendly forces. No sound plan for a major operation or campaign can be drafted without focusing all efforts to protect friendly COGs and destroy or neutralize the enemy's. **MR**

NOTES

1. Timothy J. Keppler, "The Center of Gravity Concept: A Knowledge Engineering Approach To improved Understanding and Application" (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College, June 1995), 18-19.
2. The term "critical requirements"—essential conditions, resources or means for a critical capability to be fully operational — is also used in conjunction with the term critical factors; Joe Strange, *Centers of Gravity & Critical Vulnerabilities* (Quantico, VA: Marine Corps University Foundation, 2nd ed., 1996), ix.
3. "Center of gravity" is strictly defined as "that point in a thing around which its weight is evenly distributed or balanced; center of mass; point of equilibrium; *Webster's New World Dictionary of the American Language*, College edition (New York: The World Publishing Company, 1960), 237.
4. Bruce L. Kidder, *Center of Gravity: Dispelling the Myths* (Carlisle Barracks, PA: US Army War College, 1996), 12.
5. Phillip Kevin Giles and Thomas P. Galvin, *Center of Gravity: Determination. Analysis, and Application* (Carlisle Barracks: Center for Strategic Leadership, US Army War College, 31 January 1996), 19.
6. Carl von Clausewitz, *On War*; ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 8th printing, 1984), 595-96. In this seminal work, Clausewitz opined: "One must keep the dominant characteristics of both states in mind. Out of these characteristics a certain *Schwerpunkt*, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed. It represents concentration of the enemy strength most vital to him in the accomplishment of his aim. If you could knock it out directly, it would be the most valuable target for your blows."
7. Literally, this term can be translated as the "point of the main (or critical) emphasis"; Clausewitz, *Vom Kriege*, 16th edition, with critical comments by Dr. Werner Hallweg (Bonn: Ferdinand Duemmlers Verlag, 1952), 874.
8. Keppler, "The Center of Gravity Concept: A Knowledge Engineering Approach To Improved Understanding and Application," 15.
9. "*Schwerpunkt*," HDv 100/900 VS-NfD, *Fuehrungsbegriffe (TF/B)* (Bonn: Ministry of Defense, February 1990), Sch-SEA; 0ther related terms include "area of the point of main decision" (*Schwerpunktraum*), "point of main decision in an attack" (Schwerpunkt des Angriffs), etc. Huerth, *US-NfD. Militaerisches*

Studienglossary Englisch, Teil II/III, (Bonn: *Bundessprachenamt*, January 1993), 1060; "*Schwerpunkt*," Hermann Franke, editor, *Handbuch der neuzeitlichen Wehrwissenschaften*, Vol I: *Wehrpolitik und Kriegfuehrung* (Berlin/Leipzig: Verlag von Walter de Grunter & Co, 1936), 649.
10. Collin A. Agee, Peeling the Onion: *The Iraqi Center of Gravity in Desert Storm* (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College, May 1992), 35.
11. Clausewitz, *On War* (1976), 596.
12. The Italian element consisted of the XXI Corps (five infantry divisions), and the Italian Armored Corps (*Ariete* armored division and *Trieste* motorized division): Myron J. Griswold, "Considerations in Identifying and Attacking the Enemy's Center of Gravity" (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command General Staff College, 14 May 1986), 10-11.
13. Thomas M. Kriwanek, *The Operational Center of Gravity* (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College, May 1986), 12.
14. Max G. Manwaring and Court Prisk, *A Strategic View of Insurgencies: Insights from El Salvador* (McNair Papers 4, Washington, DC: The Institute for National Strategic Studies, 1995), 18.
15. Keppler, "The Center of Gravity Concept: A Knowledge Engineering Approach To Improved Understanding Application," 6-7.
16. William W. Mendel and Lamar Tooke, "Operational Logic: Selecting the Center of Gravity," *Military Review*, June 1993, 6.
17. Ibid., 8.
18. Giles, et al., "Center of Gravity: Determination, Analysis, and Application," 17-18.
19. Michael R. Gordon and Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf* (Boston, MA: Little, Brown and Company, 1995), 354, 519.
20. Joint Pub 3-0, *Doctrine for Joint Operations*, III-21.
21. Stephen Clissold, Djilas. *The Progress of a Revolutionary* (New York: Universe Books, 1983), 95-96.
22. Giles, et al., "Center of Gravity: Determination, Analysis, and Application," 17.
23. Ibid., 15.

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Stability and Support Operations

Military operations increasingly span the spectrum between war and the other missions John Keegan calls the "small change of soldiering." That small change has become the coin of the realm. This issue includes SASO articles here and in the Insights and Almanac sections. Traditionally, the Army has said that warfighting readiness comes first, but John Nagl and Elizabeth Young argue that we should always train for peace operations as part of rotations to the dirt combat training centers. Being well-trained and well equipped may not be enough for the missions soldiers face abroad—unless resources are used properly. Denise Vowell explains how commanders and units can deliver derivative benefits to local nationals but easily misuse operations funds if their understanding and priorities are skewed. The financial blur can extend to the operation itself if peacekeepers do not understand the dynamics of crowds and mobs. Sid Heal explains the progression from order to crisis and how to respond appropriately.
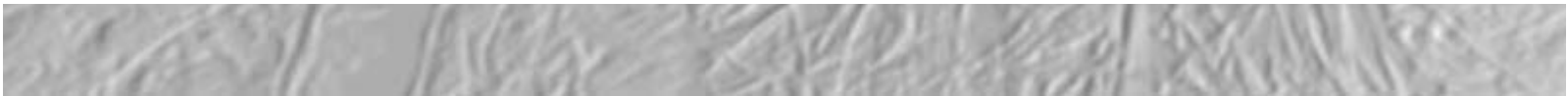
Si Vis Pacem, Para Pacem:
Training for Humanitarian Emergencies

Major John A. Nagl, US Army, and Cadet Elizabeth O. Young, USMA

We live in an age of "heavy peace."...
There will be other Kosovos, and, whether for
strategic or humanitarian reasons—or just
muddled impulses—we will not be able to
resist them all.... We cannot enter upon such
commitments under the assumption that
they will be temporary and brief...
We must stop pretending those challenges will
disappear—that "something will turn up"—
and prepare to meet them.[1]

—Ralph Peters

WITH THE END of the Cold War and the rise of ethnonationalistic conflicts, complex humanitarian emergencies (CHEs) have proliferated around the world. Internal conflicts that combine large-scale displacements of people, mass famine and fragile or failing economic, social and political institutions are becoming commonplace. War remains a common feature of the international landscape despite growing global interdependence.[2] While the end of the Cold War has reduced the risk of great-power conflict, it has also decreased the perceived constraints on proxy wars, and as a result, over 40 unresolved conflicts currently fester, simmer or rage. International peacekeeping forces alone are unlikely to achieve lasting results in most cases, but they can stop the fighting and help implement fair and lasting resolutions.[3]

While the US Army prepares to fight and win two nearly simultaneous major theater wars, it will frequently be called upon to provide the military forces necessary to implement our nation's multifaceted response to CHEs.[4] Even though peace operations and preventing deadly conflict are becoming increasingly common missions, the Army currently treats each CHE as an exception; it engages in little routine preparation for such events.[5] This problem is

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now known and discussed beyond the corridors of the Pentagon or the fields of Fort Bragg. Major newsmagazines and newspapers regularly debate the issue, including the report that "of all the services, the Army has had the most difficult transition from a Cold War force ready to defeat the Soviet Union to the sort of nimble force needed to fight wars like the one in Kosovo."[6]

The Army has conducted a number of joint, multinational, multiorganizational, multiagency and multicultural exercises to better prepare our troops for these new challenges, but they are still administered ad hoc. Because the US military, particularly the Army, is overwhelmed by internal debate concerning when and how to provide humanitarian assistance, it has not created the necessary precrisis training that numerous after-action reviews have stressed is crucial for success in these operations.[7] The Army must immediately adjust while continuing to debate the options of creating a two-tier military establishment complete with a constabulary force, changing the structure of the force to make deployments easier or simply not getting involved.[8] Such modifications are crucial, for involvement in CHEs will not wait until the debate over America's role in the post-Cold War world has been resolved.[9]

The Army must create a routine training program to make the US response to CHEs more successful.

Unless the Army creates specialized units whose primary mission is to respond to CHEs, all units must have the ability to perform them. Hence, in keeping with our "train as you fight" philosophy, all National Training Center (NTC), Combat Maneuver Training Center (CMTC) and Joint Readiness Training Center (JRTC) rotations should include a CHE scenario both leading up to and building down from a typical mid-intensity conflict (MIC) scenario (see figure). This scenario more accurately reflects the situations in which our military is likely to find itself involved and presents a greater training challenge to US forces.
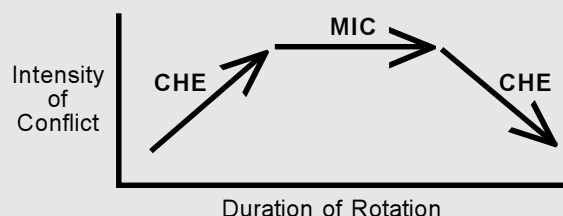
The Army must more actively prepare for CHEs. RAND researcher Jennifer Morrison Taw noted that "the Army is the most likely of all US military services to pay the price for failings in interagency coordination."[10] US policy implementation in Bosnia lacks a mechanism to ensure effective integration of the civilian and military peacebuilding programs at the tactical, operational or strategic level. The only integration thus far was at the operational level and occurred ad hoc. As a result, the military conditions for success of the Dayton Peace Accord were largely met, but the situation on the ground was never transformed into a condition from which the military could withdraw. As the first NATO commander of that mission, now retired General George A. Joulwan noted, "Because of this dilemma, there is no clear path from stabilization to normalization and no prognosis as to when the very visible military commitment to peacekeeping in Bosnia and Herzegovina can be brought to a close. The conditions that facilitate transition to normalization . . . have not been established."[11]

Unless we begin fostering such integration, the Army will be less effective and remain committed to these operations longer than if it were better trained for the demands of CHEs.

Civil-Military Coordination's Three Chief Problems

Currently, three chief problems impede effective and efficient US military responses to CHEs: the formation of multinational military coalitions; the relationship between the military and other government agencies and nongovernment and humanitarian relief organizations; and the preparation of individual soldiers.

The formation of multinational military coalitions. Today's CHEs require a multidimensional response, relying on multinational military forces, nongovernment organizations (NGOs), private volunteer organizations (PVOs), UN agencies and many other political and military actors. To be more effective in CHEs, civil and military efforts require increased coordination and integration to maximize each player's contribution and avoid redundancies and contradictory efforts. Joulwan, who was instrumental in establishing the multidimensional Partnership for Peace program, notes that in these missions "success is not measured solely by military success, but primarily by civilian success."[12]

CHEs must be addressed by politically unified and militarily effective coalitions. International cooperation to resolve CHEs can reduce the US burden and disperse responsibility.[13] The prospects for increased participation will improve if countries feel more confident that the international community can collectively manage military interventions with limited losses.[14] However, it flies in the face of reason to expect troops from widely disparate armies to work in harmony without preparation.[15] For example, in Cambodia, 35 countries participated in the peacekeeping force—a recipe for coordination difficulties.[16] Multinational force commanders must therefore understand the divergent training quality among their military contingents.[17]

The best way to offset these sorts of problems is to establish multinational training on the tactical, organizational and strategic levels. First Sergeant Michael Prickett, Company C, 2d Battalion, 87th Infantry Regiment, recently participated in CENTRAZBAT '98, a multinational peacekeeping exercise which brought 160 soldiers from the 10th

Soldiers of the 10th Mountain Division participated in CENTRAZBAT '98, a peacekeeping exercise that brought together soldiers from Turkey, Russia and five former Soviet republics.

Mountain Division together with soldiers from Turkey, Russia and five former Soviet republics. Recounting the experience, Prickett noted that "in this age of multinational peacekeeping operations, where you must work closely with soldiers from other countries, this kind of training is very, very valuable. Knowing how other armies do business is a big deal when you actually have to go into a real-world situation with them."[18] Private Dickey Young, a B Company rifleman, added that "it's different when you're actually working with people from other countries, getting to fire their weapons and living in the same area with them."[19]

These exercises have more than symbolic importance. They can foster interoperability as participating forces practice combined peacekeeping and humanitarian relief operations at platoon and company levels.[20] Such training increases the efficiency of US forces in responding to CHEs, especially at the tactical level, where these operations succeed or fail.

The civil-military relationship. Dealing with the vast number of NGOs and PVOs that typically respond to CHEs can be frustrating and confusing for both the military and its civilian counterparts.[21] Military objectives, capabilities and perspectives on the problem could hardly be more unlike those of the NGOs.[22] Regardless of how frustrating or confusing this coordination is, we must remember that "although military forces can maintain an absence of war, they cannot themselves build peace."[23] Max G. Manwaring remarked that "contemporary conflict requires strategic planning and cooperation between and among coalition partners, international organizations, nongovernment organizations and the US civil-military representation."[24] In these new missions, a range of issues must be addressed virtually simultaneously—from economic, political and military to social, cultural and legal.[25] Thus, "the creation of an integrating structure is among the most daunting challenges the international community confronts."[26]

Despite numerous involvements in CHEs, we have still not done it right. Preparing for and then responding to CHEs requires increased coordination with NGOs, PVOs and other US government agencies.[27] A recent RAND publication focused solely on the problem of interagency coordination in CHEs, noting that "even among US agencies alone, such coordination is difficult to achieve. US interagency processes remain fraught with competition and confusion, and lack authority and accountability. Neither the military nor the civilian agencies are sufficiently familiar with each other's capabilities, objectives or limitations to
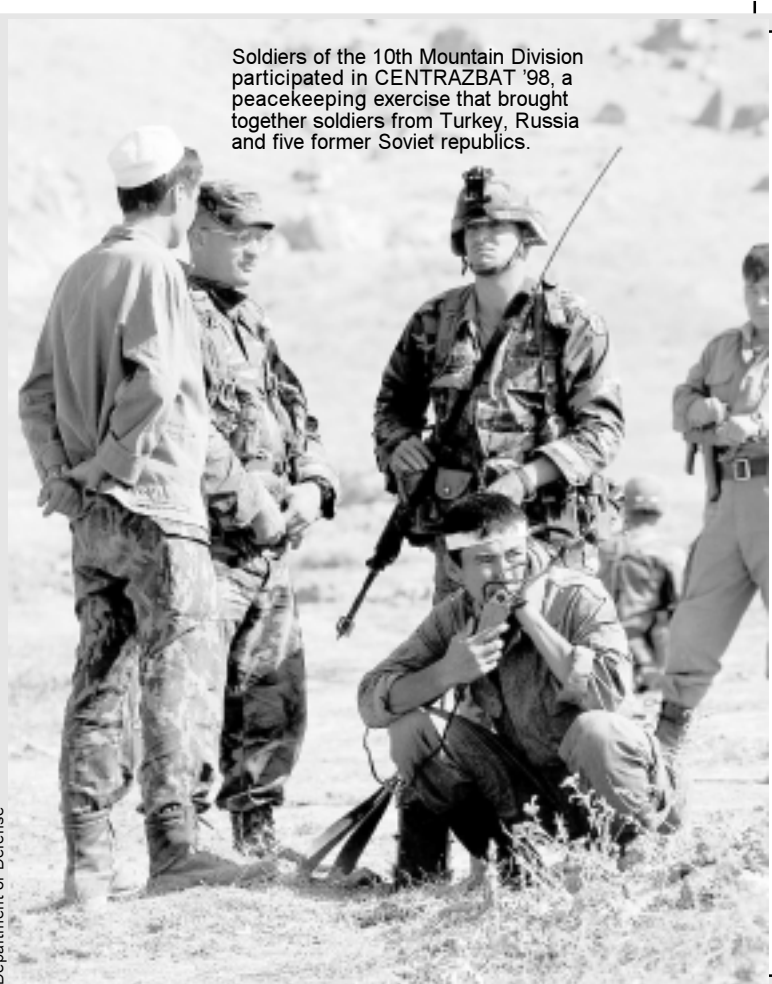
Multinational peacekeeping exercises have more than symbolic importance. They can foster interoperability as participating forces practice combined peacekeeping and humanitarian relief operations at platoon and company levels. Such training increases the efficiency of US forces in responding to CHEs, especially at the tactical level, where these operations succeed or fail.

effectively coordinate their activities."[28]

Beyond US interagency coordination lies the far more daunting task of dealing with NGOs. For example, in Somalia dealing with 78 NGOs was difficult for the military, but "coordination among agencies at the outset helped alleviate tensions."[29] The military needs to understand better the requirements and philosophies of the NGOs and the functions of specific organizations. A roundtable discussion at the Strategic Studies Institute explained that "in military terms, humanitarian affairs are the primary effort and military activity the supporting effort in most peace operations."[30] All CTC training should likewise involve NGOs, other government agencies and other nations.[31]

The Army must consider NGOs as "a resource with vital experience and unequaled knowledge.

Department of Defense

They should be accepted as full partners."[32] Often, NGOs and PVOs precede military forces into crisis areas where US peace operations take place. Many of these agencies will already have established a close rapport with the belligerents and local nationals in the area. Thus, "in establishing its

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Institutionalizing CHE training carries with it the perception of permanence. However, training for and participating in CHEs will not necessarily degrade warfighting opportunities for most units. The key is to preserve warfighting skills while augmenting effectiveness at peace operations since "war-fighting and peace operations must not become alternatives but compatible and symbiotic techniques aimed at a common goal."

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own role as a benefactor, the task force must form a close civil-military partnership with these agencies, which will help ensure unity of effort and implementation of effective programs. The first step in the synchronization of these efforts requires civil and military components to reach a common appreciation of each other's capabilities, which should lead to a greater degree of mutual respect."[33]

The Army's after-action review from Operation *Support Hope* in Rwanda stressed the need to build bridges with the UN and NGO communities before a crisis occurs and develop training that focuses on integrating capabilities.[34] Many civilian agencies are wary of working with, being associated with, or being overwhelmed by the military. However, Taw noted that frequently NGOs reluctant to work with the military are simply unfamiliar with military capabilities, objectives and limitations.[35]

It would be foolish to discount the cultural differences between the US military and civilian humanitarian agencies. Tension is inevitable when the military considers CHEs secondary missions to warfighting and while civilians involved see their primary mission as protecting and assisting innocent civilians.[36] Still, the only way to combat such parochialism is to begin working together. Overcoming these problems prior to deployment increases the chances of successful mission accomplishment. While organizational and cultural differences between civilian and military organizations do create problems in CHEs, "the bottom line was that interagency operational level coordination was incomplete in the preparation phase."[37] Establishing ap-

propriate coordination mechanisms between these various services, agencies, nations and organizations in advance "may not guarantee success in an operation," but an absence of such cooperation will "nearly always assure failure."[38]

The preparation of individual soldiers. While international collaboration among senior military commanders has increased, CHEs often still confuse individual soldiers. As Ralph Peters wrote, "we need to change the force to fit the times. . . . We must have soldiers of adequate quality in sufficient numbers, and they must be well trained and appropriately equipped. . . .When we think about the Army of the future. . . we need to start thinking from the soldier up."[39]

During Operation *Restore Hope*, the Army discovered that troops were bewildered by the overlap between combat missions and peacekeeping. Moreover, many military units were ill prepared for a mission that required a mind-set very different from the warrior ethos.[40] Because each soldier's actions often carry significant political consequences, it is imperative to focus CHE training on the small-unit level.[41]

In addition to the tactical training for the soldiers, officers need special consideration. Our Army too often clings to traditional solutions, praising a "past that we do not understand."[42] Company and field grade officers need specialized training since they often must function "two levels higher" during CHEs, thinking and operating at the operational and strategic levels. Preparation for CHEs should account for broader command and political-military responsibilities borne by lower-ranking soldiers than is common in MIC.[43]

A Proposal for Mandatory Training

To minimize the impact of civil-military coordination problems, multidimensional training must occur regularly. This training can be conducted when units deploy to the JRTC at Fort Polk, Louisiana; to the NTC in Fort Irwin, California; and to the CMTC in Hohenfels, Germany.[44] Requiring units to be proficient in operations relevant to CHEs and in their dealings with civilians will cause them to *prepare* for such training regularly.

The Army's JRTC offers rough, realistic and stressful two-week exercises to improve the leadership and proficiency of military units. While the JRTC simulates low- to mid-intensity conflict, it can also simulate stability and support operations (SASO), the military's term for CHEs.[45] In the summer of 1994, JRTC SASO simulation involved more than

The JRTC has simulated stability and support operations since 1994 and currently trains units scheduled for participation in Bosnia's SFOR.

Unless the Army creates specialized units whose primary mission is to respond to CHEs, all units must have the ability to perform them. Hence, in keeping with our "train as you fight" philosophy, all NTC, CMTC and JRTC rotations should include a CHE scenario both leading up to and building down from a typical mid-intensity conflict scenario.

6,000 troops from various countries along with foreign observers and humanitarian aid representatives.[46] In the summer of 1996, JRTC replicated a combined and joint task force mission in an operational area similar to Bosnia or Somalia, complete with scenarios of ethnic strife, civil war and competing insurgencies. As one participant noted, "the realistic conditions posed by JRTC provided participants with the mental preparation and practical experience necessary to perform future peace operations."[47]

The JRTC currently trains units scheduled for participation in Bosnia's Stabilization Force (SFOR) using a peacekeeping scenario approximately six months prior to their deployment overseas. Every unit that has participated in SFOR has first trained at the JRTC in a mission rehearsal exercise (MRE). Six MRE's have been conducted, the most recent for the 49th Division of the Texas Army National Guard, which will act as the headquarters for units from the 3rd Armored Cavalry Regiment, which assumes the SFOR mission in March 2000.[48]

While training prior to scheduled deployment on peacekeeping operations is certainly both sensible and appropriate, it is insufficient. The Army should integrate multidimensional operations that involve multinational, NGOs, PVOs, UN participants and relevant US agencies into *all* JRTC, NTC and CMTC rotations. Current training scenarios at the NTC include a reception, staging, onward movement and integration (RSOI) phase, during which units drawing equipment secure the compound against terrorist threats, civilian protests and car bombs under the careful scrutiny of "the media," while also organizing military security for a UN relief mission. During the rotation itself, units confront more refugees, guerrillas, injured civilians and representatives of NGOs and PVOs on the battlefield, although soldiers in the brigade support area are challenged more intensely than those in the combat task forces.[49]

These multidimensional training exercises should include actual members of civilian relief organizations. Preparing at the training centers prior to civilian and military involvement in an actual CHE will allow all parties involved to anticipate various problems and make the actual deployment and operation run more smoothly. Such training at the JRTC, NTC and CMTC will allow military commanders to work with their civilian counterparts and give regular soldiers an opportunity to prepare

psychologically and tactically for peacekeeping missions. The training will also benefit the NGOs, PVOs and other multinational forces that have never worked together in a simulated operational environment.

In addition to tactical training at the JRTC, NTC or CMTC, a staff officer training program should

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be conducted simultaneously. For example, during the multidimensional Cooperative Nugget 97, more than 3,000 military personnel from three NATO countries and 17 Partnership for Peace countries were trained at the JRTC. Simultaneously, two company or field grade officers from each participating nation were involved in the staff officer program. Civilians of comparable stature from other government agencies, NGOs and PVOs can also be included. The program included travel to the US Army Peacekeeping Institute at Carlisle Barracks, Pennsylvania, and a session at Fort Benning, Georgia, for follow-on instruction.[50]

Expected Problems

Many military members hesitate to institutionalize such training because they do not want humanitarian emergencies to interfere with training for traditional "warfighting" missions.[51] Institutionalizing CHE training carries with it the perception of permanence. However, training for and participating in CHEs will not necessarily degrade warfighting readiness for most units. The key is to preserve warfighting skills while augmenting effectiveness at peace operations since "war-fighting and peace operations must not become alternatives but compatible and symbiotic techniques aimed at a common goal."[52] Indeed, an estimated 90 percent of the training for peacekeeping is also training for general combat capability.[53] As we prepare for the missions we would like to fight, the real missions we are currently conducting—responses to CHEs— are "improvised at great expense to our readiness, unit integrity and quality of life of our service members."[54] Through increased exposure to CHEs, the military will come to realize that, "peace operations and warfighting may seem diametric. . . . In fact, they are inextricably linked. The US Army has long accepted the value of combat training for deterring full-scale war and preserving national security. It must now recognize that multinational peace operations fill the same role, and thus give them appropriate care and attention."[55]

While we anticipate that foreign militaries will enthusiastically participate in these exercises, some NGOs may fear a closer association with the military.[56] However, Joulwan believes that NGOs are ready to come on board as long as they are included in upper-level decision making.[57] In fact, a NGO participant at the 1996 JRTC exercise noted that nonmilitary players add "a new element to military decision making."[58] Multidimensional exercises would improve interagency coordination and the NGOs' familiarity with the military.[59] Interagency coordination at the planning as well as execution stages of training will better preserve the independence of the NGOs. In addition, greater NGO involvement will demonstrate the military's increasing appreciation and respect for the civilian role in responding to CHEs.

This proposed training would not fundamentally solve any of the Army's problems. It would not change the Army's structure, rearrange the allocation of resources and personnel or modify Army doctrine. All it would do is take the best training that the Army has to offer—that conducted at JRTC, NTC and CMTC—and make it better reflect the types of missions the Army currently faces and will continue to face for at least the near future. As Peters reminds us, "one way or another, we will go. . . . Deployments often will be unpredictable, often surprising. And we frequently will be unprepared for the mission, partly because of the sudden force of circumstance but also because our military is determined to be unprepared for missions it does not want, as if the lack of preparation will prevent our going."[60]

Although the Army is currently involved in a number of CHEs, it has been perceived by many as being unwilling to perform these missions. Richard Schulz, director of the international security studies program at the Fletcher School of Law and Diplomacy at Tufts University, was recently quoted in the *Boston Globe* as saying, "the one service that has a different view about this is the Marine Corps. They are willing to do it."[61] The Army must have the same willingness and reassert its role as the branch of choice in peacekeeping operations. Creating a routine training program for

CHEs will be a step in the right direction.

Clearly, training and preparation for peace operations should not detract from a unit's primary mission of training to fight and win in combat. However, the traditional rule for regulating conflict and security, *si vis pacem, para bellum* (if you want peace, prepare for war), must be modified. Today, we have an additional principle in conflict resolution: *si vis pacem, para pacem*: if you want peace, prepare for peace.[62] *MR*

NOTES

1. Ralph Peters, "Heavy Peace," *Parameters* (Spring 1999), 73-74.
2. Doug Lute, *Improving National Response to Complex Emergencies* (New York: Carnegie Corporation, 1998), 2. Lute defines complex emergencies as those that "combine internal conflict with large scale displacements of people, mass famine and fragile or failing economic, political and social institutions."
3. Andrew J. Goodpaster, *When Diplomacy is Not Enough: Managing Multinational Military Interventions* (New York: Carnegie Corporation, 1996), 10-12.
4. Thomas H. Johnson, "The Task Structure of International Peace Operations," presentation given at the 39th Annual Meeting of the International Studies Association, Minneapolis, MN, March 1998.
5. Jennifer Morrison Taw, David Persselin and Maren Leed, *Meeting Peace Operations' Requirements While Maintaining MTW Readiness* (Santa Monica, CA: RAND, 1998), 62.
6. Stephen Lee Meyers, "Politically Astute Generals Picked to Lead Services," *The New York Times*, 22 April 1999.
7. For example, John E. Lange wrote that Operation *Support Hope* in Rwanda showed significantly different perspectives between the military and civilians involved. Lessons learned in exercises have focused on improving civil-military coordination in humanitarian operations. "These efforts should continue, particularly given the certainty that the military will be called upon again to support humanitarian relief efforts when they exceed the capacity of humanitarian agencies to handle them. Improved planning and coordination is particularly important between the armed forces and the international organizations and NGOs that specialize in humanitarian relief." See "Civilian-Military Cooperation and Humanitarian Assistance: Lessons from Rwanda," *Parameters* (Summer 1998), 106.
8. Don Snider, "Let the Debate Begin: It's Time For An Army Constabulary Force," *ARMY* (June 1998), 14-16. Also Goodpaster argues that "national force structures may need to be adjusted to deal more effectively with foreign internal conflicts. For example, additional military police units may be needed as military forces become increasingly involved with operations that put them into direct contact with civilian populations on a regular basis," in *When Diplomacy Is Not Enough*, 7.
9. Jennifer Morrison Taw and John E. Peters, *Operations Other Than War: Implications for the US Army* (Santa Monica, CA: RAND, 1995), xiii.
10. Ibid., 10 and 28.
11. George A. Joulwan and Christopher C. Shoemaker, *Civilian-Military Cooperation in the Prevention of Deadly Conflict* (New York: Carnegie Corporation, 1998), 5-6.
12. General George A. Joulwan, interview by Cadet Young, 7 December 1998, West Point, NY.
13. Joulwan and Shoemaker, 1.
14. Goodpaster, 14.
15. LTC James H. Baker, "Policy Challenges of UN Peace Operations," *Parameters* (Spring 1994), 19 and 24. Baker has served with the Peacekeeping Forces in the Sinai Peninsula, Egypt, Lebanon and the Iraq-Kuwait Demilitarized Zone.
16. Janet E. Heininger, *Peacekeeping in Transition: The UN in Cambodia* (New York: The Twentieth Century Foundation Press, 1994), 128.
17. Clayton E. Beattie, "The International Peace Academy and the Development of Training for Peacekeeping," in *Peacekeeping: Appraisals and Proposals*, ed. Henry Wiseman (New York: Pergamon Press, 1983), 214. Interestingly enough, Mats R. Berdal noted that "it is worth stressing in this context that the performance of UN peacekeeping troops does not follow the simple division between Western first world armies and those of the developing countries, although it is often alleged that it does. The most successful contingents in Cambodia are widely thought to be those from India and Uruguay, while Moroccans and Italians in Somalia are both highly respected for their rapport with the local populaton." In "Whither UN Peacekeeping?" *Adelphi Paper 281* (London: International Institute for Strategic Studies, October 1993), 47.
18. Cited by SSG John Valceanu, "Centrazbat '98," *Soldiers* (February 1999), 5-6.
19. Ibid., 7.
20. "Memorandum for Correspondents" [Online] (accessed 27 February 1999); available from <http://www.defenselink.mil/news/May1997/m052997_m088-97.html and Internet; homepage: *DefenseLINK* [Online] available from <http://www.defenselink.mil; Internet>.
21. Taw, *Interagency Coordination in Military Operations Other Than War* (Santa Monica, CA: RAND, 1997), 23.
22. Lute, 6.
23. Joulwan and Shoemaker, 9.
24. Max G. Manwaring, "Peace and Stability Lessons from Bosnia," *Parameters* (Winter 1998-99), 32.
25. Joulwan and Shoemaker, 1.
26. Ibid., 2.
27. Joint Warfighting Center, *Joint Task Force Commander's Handbook for Peace Operations* (Washington, DC: US Government Printing Office, 1997), II-1.
28. Taw, 3.
29. Ibid., 10 and 19.
30. Doll and Metz, 17.
31. Ibid., 21.
32. COL Karl Farris, "UN Peacekeeping in Cambodia: On Balance, A Success," *Parameters* (Spring 1994), 48. Farris recently stepped down as director of the Peacekeeping Institute at the US Army War College. He also served as the senior US military observer for the UN Mission in Cambodia.
33. Charles H. Swannack and LTC David R. Gray, "Peace Enforcement Operations," *Military Review* (November-December 1997), 8.
34. United States European Command Headquarters, After Action Review: Operation *Support Hope* (Rwanda) 1994, (Europe: USEUCOM, 1995).
35. Taw, 22-23.
36. Lange, 106.
37. Margaret Daly Hayes and Gary F. Wheatley, ed., *Interagency and Political-Military Dimensions of Peace Operations: Haiti— A Case Study* (Washington, DC: National Defense University, 1996), 37.
38. William J. Doll and Steven Metz, *The Army and Multinational Peace Operations: Problems and Solutions* (Carlisle Barracks, PA: Strategic Studies Institute, US Army War College, 1993), 4. This report is a result of a roundtable discussion that took place on 29 November 1993 and was sponsored by the Strategic Studies Institute, the US Army War College and the US Army Peacekeeping Institute at the US Army War College.
39. Peters, 79.
40. Johnson.
41. Swannack and Gray, 9.
42. Ralph Peters, 71.
43. Tom McNaugher, interview by Cadet Young, 30 March 1999, West Point, NY.
44. Some units are already making such adaptations in the field. For an example, see John A. Nagl and Tim Huening, "Nearly War: Training a Divisional Cavalry Squadron for Operations Other Than War" *Armor* (January/February 1996), 23-24.
45. OOTW is the Army's term for noncombat operations, including responses to Complex Humanitarian Emergencies. While OOTW is an option at JRTC, most units still choose standard exercises (Taw, Parsellin and Leed, 31).
46. B. Novovitch, 14 August 1994, "US Troops Stage Major 'Peacekeeping' Exercise," Reuters, Limited.
47. Swannack and Gray, 10.
48. Telephone interview with MAJ Bill Costello, JRTC Public Affairs Officer, 19 Dec 99.
49. Telephone interview with MAJ Barry Johnson, NTC Public Affairs Officer, 19 Dec 99.
50. *DefenseLINK*.
51. Lute, 7.
52. Doll and Metz, 1.
53. Mats R. Berdal, "Whither US Peacekeeping?" *Adelphi Paper 281* (London: Institute for International Strategic Studies, 1993), 47.
54. See Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington, IN: Indiana University Press, 1973). Weigley argues that "in the history of American strategy, the direction taken by the American conception of war made most American strategists, through most of the time span of American history, strategists of annihilation," xxii. Also see Ralph Peters, 76.
55. Doll and Metz, 22.
56. Many countries already conduct multinational peacekeeping training exercises. For example, the Scandanavian countries, which have donated over one-quarter of all UN peacekeepers, have established joint programs to train volunteers for peacekeeping missions. Recently, the Nordic Brigade has cooperated with Poland to form a joint Nordic-Polish Brigade that served with IFOR in Bosnia. This approach has been emulated by countries such as Austria, Malaysia and Switzerland. However, informal interviews with CNN World correspondent Ralph Begliter (22 November 1998) and Council on Foreign Relations member and Yale Law Professor Ruth Wedgwood (26 November 1998) have both brought to light the fact that NGOs often are fearful of losing independence or being seen as too connected to the military.
57. Joulwan interview.
58. Novovitch.
59. Taw, 23.
60. Ralph Peters, 74.
61. *The Boston Globe*, 7 March 1999.
62. Michael Renner, *Critical Juncture: The Future of Peacekeeping* (Worldwatch Institute, May 1993), 5-6.

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Using Operations and Maintenance Funds in Contingency Operations

Colonel Denise K. Vowell, US Army

MANY MILITARY LEADERS misunderstand the importance of fiscal law in military operations, particularly the restrictions on the use of operations and maintenance (O&M) funds. Congress uses fiscal constraints to control military operations and foreign policy. Commanders who ignore those funding restrictions risk their careers and, ultimately, may place the operation itself in political jeopardy. Congress or its watchdog agencies (the Comptroller General and the General Accounting Office [GAO]) may seize on a well-intended, but misguided use of military resources to tighten the purse strings on a particular operation or on military funding in general. This article is intended to sensitize leaders to these risks and to suggest ways to reduce both personal and mission exposure.

Constraints in Funding
National Security Operations

Congress uses a variety of mechanisms to control expenditures, from very general to highly specific legislation. The general legislation is the basic appropriation process. In a national defense budget totaling hundreds of billions of dollars, Congress cannot provide line-item detail for expenditures. Accordingly, it issues lump-sum appropriations—money placed in broad categories such as procurement, military construction (MILCON) and operations and maintenance. Congress then controls expenditures of those categories through statutes that govern all government expenditures—general fiscal law—or through very specific directions for named agencies or programs. In addition, the GAO scrutinizes agency spending for compliance.

General fiscal law. What has been called the "Purpose Statute" is key to Congress's control over how federal dollars are spent. Originally enacted in 1809, the statute is a cornerstone of congressional control over the federal purse. It requires that funds be spent only on the objects for which the appro-

> *For commanders who argue that it is better to seek forgiveness than to ask permission, a set of related statutes known as the "Anti-Deficiency Act" may make them think twice. . . . Unlike most fiscal constraints, the **ADA** has teeth, authorizing mandatory "appropriate" administrative sanctions, fines and imprisonment for knowing and willful violations.*

priations were made, and it prohibits reappropriation, transfer and diversion of unexpended funds, unless authorized.[1]

For commanders who argue that it is better to seek forgiveness than to ask permission, a set of related statutes known as the *Anti-Deficiency Act* (*ADA*) may make them think twice. The heart of the *ADA* is just a few lines long: "An officer or employee of the United States Government . . . may not make or authorize an expenditure or obligation exceeding an amount available in an appropriation or fund for the expenditure or obligation."[2]

Unlike most fiscal constraints, the *ADA* has teeth, authorizing mandatory "appropriate" administrative sanctions, fines and imprisonment for knowing and willful violations.[3] Aside from the statutory penalties, the military departments require investigation of potential violations, identification of individuals responsible, reports to Congress and sanctions.[4] The DOD policy requires disciplinary action for anyone found responsible for an *ADA* violation.[5] While extenuating circumstances will be considered in determining the appropriate penalty, good faith or good intentions will not excuse a violation.

The *Economy Act* is a twist on the transfer prohibitions of the Purpose Statute.[6] For example, if DOD engages in foreign aid operations that should more properly be performed by the State Department, the result is that DOD has reduced its dollars

available for national defense activities and the State Department budget has been, in effect, augmented. Because the State Department no longer has to spend its resources to accomplish what the DOD did for it, it now has more funds to spend on other programs. The *Economy Act* requires this imbalance to be corrected by compelling the agency receiving the benefit to transfer funds to the agency performing the service. The funds transferred must equal the full value of the services rendered, including indirect costs.

Examining expenditures. Expenditures are evaluated and scrutinized in three aspects: time, purpose and amount. Time refers to the period during which particular funds may be used. Under most circumstances likely to arise during military operations other than war, meeting the time test is not difficult, since operational funds are "Cinderella" dollars; they expire at the end of the fiscal year and are replaced by the new fiscal year's funds. The amount requirement has caused some difficulty, but the purpose restrictions cause most of the headaches. Determining the authorized purposes for which a lump sum appropriation can be spent is far easier said than done.

O&M appropriations are the primary source of funds for most contingency operations and frequently may be the only source of funding available. Military lawyers are taught to analyze expenditures using the following framework:
- Is the expense necessary?
- Is there a more specific appropriation for this purpose?
- Does this expenditure augment accounts?

A necessary expense does not have to be the only way or even the best way to accomplish the agency's mission. The key is whether the expenditure will accomplish the purpose of the appropriation. Thus, funding questions are closely tied to the military's roles and missions as established in *United States Code* (*USC*), Title 10, as well as in military custom and experience.

Funding statutes other than O&M play a large role in military operations. Separate accounts are provided for MILCON and procurement. Without specific statutory authorization, O&M funds cannot be expended for construction and procurement, for the more specific appropriation must be used rather than the more general one. This rule applies even if funds in the more specific appropriation have been exhausted.

The augmentation rule is imposed by the Purpose Statute and the *Economy Act*. In determining whether O&M funds can be spent for a particular mission, it is therefore essential to ask: whose mission is this? In combat operations or in operations approaching combat conditions, congressional or GAO second-guessing of fiscal decisions is less likely. The closer the operation is to combat on the spectrum of conflict, the more flexible the com-

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The general rule is that equipment, supplies and services provided to US forces may not be shared with, loaned or given to any other country or organization. The general rule has many exceptions, but commanders do not have any inherent authority to grant exceptions on their own. Acquisition and cross-servicing agreements are the chief exception.

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mander's fiscal options become. The fiscal law principles of necessity and purpose are strongly evident in combat or near-combat operations.

Conversely, in operations designated from the outset as humanitarian and civic assistance (HCA) operations, fiscal law questions are likely to be relatively simple. Fiscal law issues can arise in these operations concerning what should be funded by foreign aid or security assistance dollars and what should be funded by military HCA O&M dollars, but the potential for misspending general O&M funds is reduced. However, when HCA efforts are funded under *USC*, Title 10, Section 401, the military may only engage in activities in five areas: medical, dental, and veterinary care; construction of rudimentary surface transportation systems; well drilling and construction of basic sanitation facilities; rudimentary construction of public facilities; and mine-clearing operations. A military operation must be designated as an HCA mission by the Joint Chiefs of Staff and approved by the Secretary of State to qualify for Section 401 funding.

Peacekeeping and peace-enforcement operations, with their mix of missions, present the most difficult fiscal law issues, especially in coalition environments. Without designation as an HCA mission, these operations cannot use the congressionally appropriated HCA funds. They are likely to be more politically contentious, and, as Congress seeks control over foreign affairs through the purse strings, they are more prone to second-guessing about the lawfulness of expenditures. Mission creep has fiscal as well as operational implications; financially strapped aid programs (government and otherwise) see large groups of soldiers, vehicles and supplies as sources of assistance.

Coalition environments present significant fiscal issues, notably those involving logistic support to nations, organizations and agencies other than US

military forces. The US military takes great pride in its highly trained and well-equipped forces. The level of logistic support, including health and comfort supplies and facilities, exceeds that of most of our potential coalition partners. In contrast, UN-supplied forces often experience difficulties in obtaining basic support, particularly in the early days of a deployment.

Americans are an extraordinarily generous people, and our military forces share that generous

> *If the Muslims and Croats were afraid to use the existing road, the military could patrol it, but for US forces at least, road construction was out. The military mission to facilitate freedom of movement could be accomplished by other methods than road construction. The US military had to tell NATO it could not assist in the road-construction effort.*

spirit. Frequently, well-meaning commanders seek to share supplies and equipment, for either humanitarian or operational reasons, with their coalition partners. Unfortunately, their desires cannot always be accommodated.

The general rule is that equipment, supplies and services provided to US forces may not be shared with, loaned or given to any other country or organization. The general rule has many exceptions, but commanders do not have any inherent authority to grant exceptions on their own. Acquisition and cross-servicing agreements (ACSA) are the chief exception.[7] They permit logistic support to certain countries by a replacement in kind, trade or cash. Major end items may not be provided under ACSA; they are not substitutes for foreign military sales programs. Not all nations are covered by an ACSA, and the list of covered nations changes periodically.

Recent Fiscal-Operational Issues

Both the Haiti and Bosnia missions have generated a variety of fiscal issues. As joint combined operations under UN sponsorship, without significant military HCA funding, they offer many problems in the use of O&M funds. For a trained operational lawyer, the issues are relatively easy to spot. However, coming up with answers that respect fiscal law and permit mission accomplishment can be extraordinarily difficult. As the following examples illustrate, how the mission is framed and documented is crucial to establishing a sound basis for spending US dollars. While the word "operational" is not a magic wand that makes fiscal law

problems disappear, the term "logistic support" is one that is sure to invoke them.

Road building. The Bosnian and Haitian operations each generated fiscal issues involving road building and repairing. At the time of the deployment, Bosnia's paved roads, as well unpaved secondary roads, were extensively pitted from active fighting, land mines and years of neglect. In Haiti, the road network, never very robust by US standards, had also suffered from considerable neglect. The road networks in both countries were essential for resupply, communications and accomplishing military missions to establish safe and secure environments.

To determine the limits on US forces in road repair or reconstruction, several questions had to be answered. First, what is the reason for the roadwork: to enable US forces to do their job or to aid the local population? Roadwork for US forces is operational; building or repairing roads primarily for the host country is foreign assistance. Second, what type of road work is to be done? Is this construction of a new road, upgrading a dirt road to asphalt or patching up holes? New and upgraded roads are classified as construction; repair of existing roads is not. Construction can be funded with O&M dollars, but there is a limit on such funding. If the road work is patching, grading or paving to restore the road to a usable condition or to repair damage US forces have caused, O&M dollars can be used and construction funding caps do not apply. Third, how much will the road work cost? Project splitting is prohibited, but is work on two different roads one project or two? Lumping unrelated work together may result in the construction cap being unnecessarily applied.

While other issues may determine the scope of the project, the purpose determines whether it can be performed at all. Early in the Bosnian deployment, US forces were asked to help build a new two-lane road between Sarajevo and the Muslim enclave of Gorazde. The military annex to the Dayton Peace Accords required the road but as in other annexes, it was silent on who was to pay the bill. Could we assist? After all, the mission to build the road was found in the military annex to the accord, an annex largely drafted by the United States. Command of the military forces in Bosnia rested in a US officer, and the mission was a NATO operation.

The answer was simple, but it was not one the NATO command structure wanted to hear. The road was to be built to aid the civil government and civilian population of Bosnia, not to assist the military forces to accomplish their mission. US and NATO forces could use the existing road, which ran

Civil affairs soldiers of the 10th Mountain Division prepare to cut lumber for refurbishing a Somali community center. Leaders must ensure that operational funds and assets are not used for projects that primarily benefit civilians.

Peacekeeping and peace-enforcement operations, with their mix of missions, present the most difficult fiscal law issues, especially in coalition environments. Without designation as an HCA mission, these operations cannot use the congressionally appropriated HCA funds.

through Serb-controlled areas. If the Muslims and Croats were afraid to use the existing road, the military could patrol it, but for US forces at least, road construction was out. The military mission to facilitate freedom of movement could be accomplished by other methods than road construction. The US military had to tell NATO it could not assist in the road-construction effort.

Conversely, construction of another new road, albeit shorter and unpaved, within the American sector was approved. One of the larger base camps in the northern sector, Camp McGovern, straddled one of the principal roads used by civilian traffic in the area. Each vehicle using the road to travel through the base camp had to be stopped and searched, and as the economy and political situation gradually improved, more vehicles began transiting the base. The gate and search areas were close to both the camp headquarters and life-support areas. A car bomb at the gate or an uninspected vehicle presented a hazard to American forces. The division determined that a bypass road was necessary for force protection. Although it might appear that the road was constructed to benefit the local freedom of movement, the real reason for its construction was to reduce the hazard to American forces. That the local population no longer had to wait in line to have

their vehicles inspected was incidental to the construction, not the reason for it.

Haitian road construction issues were raised to the JCS level in 1995. Having properly concluded that O&M funds could not be used to lay asphalt and construct drainage along a 1.3-mile stretch of roadway, Atlantic Command sought $820,000 in HCA CINC initiative funds. Applying the statutory language from *USC*, Title 10, Section 401, the JCS deputy legal advisor concluded that "rudimentary surface transportation systems" and "rudimentary construction and repair of public facilities" did not include asphalting a roadway. The opinion suggested that State Department or Agency for International Development (AID) funding or loans and grants from third parties be considered as possible funding sources for the project.[8]

One other aspect of road building and road repair bears mentioning. Damage to roads caused by US forces may be the basis for a claim by a local government or, in the case of private roads, the individual owners.[9] Maneuver damage claims are handled from separate claims funds, not from the unit O&M accounts. Prompt reporting of damaged roads, followed by equally swift claims investigations, adjudications and payments, may provide needed assistance to the indigenous population,

without engaging in tortured justifications for road repairs with only marginal benefit to US forces. Claims personnel will not, however, pay claims for damage unless US forces are responsible for the damage.

Support to other nations. Another common theme in both Bosnia and Haiti was the issue of supporting other coalition members and UN agencies that were part of the peace effort. The general rule

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By tasking the Turkish, Nordic-Polish and Russian brigades with the bulk of the vaccine delivery missions, and tasking US troops to assume some of those allied brigades' Dayton enforcement operational missions, the American-led division was able to execute the humanitarian aid mission without violating US law.

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that the US logistics system could support only US forces and their mission caused frustration in both operations. Some coalition partners, particularly the UN police monitors in both countries, were poorly sustained. Without US assistance, they were frequently unable to perform their missions, leaving their tasks undone or on the shoulders of other (often US) personnel.

In Bosnia, the International Police Task Force (IPTF), a UN-funded agency tasked with making the various Bosnian police forces more suited for a democracy than a police state, relied heavily on the NATO forces for logistic support. Even during the Stabilization Force (SFOR) portion of the deployment, more than a year after the Dayton Accords were signed, US forces received frequent IPTF requests for fuel, water and food. While billing mechanisms existed to charge the UN for the IPTF logistic support, the documentation and collection process was cumbersome.

US forces in Haiti had similar support requests from the Multinational Force (MNF) in Haiti, to include the International Police Monitors. By message, the JCS provided authority for logistic support to the non-DOD participants.[10] These mechanisms were complex, using the *Foreign Assistance Act*'s drawdown authority to provide food, fuel and spare parts support to non-US personnel. Support to US personnel, particularly the International Police Monitors, was authorized through the logistic support contract (LOGCAP) with Brown and Root, but separate accounting was required in order to bill the Department of State under the *Economy Act* for the funds expended.

Legal reviews of requests for logistic support were very fact-dependent, and sometimes the level of detail provided (or sought) by operational lawyers made the difference between approval and disapproval. For example, a request to supply "connex" containers (portable modular units originally acquired from the UNPROFOR mission) to serve as IPTF offices at local hot spots could have been viewed as logistic support for the UN and denied. When it became clear that US patrols and command and control elements would be occupying the trailers along with the IPTF officers, the request was granted because support to the UN was incidental to supporting US personnel.

Providing influenza vaccine to the Russian brigade illustrates the importance of properly documenting the reasons for the request. Given the political wrangling in trying to negotiate an ACSA with the Russian government, European Command's guidance was that no "excess" US property could be provided to the Russians. The division surgeon carefully documented the medical necessity for vaccinating all soldiers in the division: the expected virulence of the season's virus; the close living and working conditions, which provided ideal conditions for airborne viral transmission; and the concept of "herd" immunity, which considered the rate at which influenza viruses can mutate and spread from an unvaccinated person to a vaccinated one. Additionally, the division operations center provided data on the operational impact of an influenza epidemic in the Russian sector alone on the division's ability to accomplish its military missions of patrolling and weapon storage site inspections. The issue then became one of force protection rather than foreign logistic support.

HCA activities. Another Bosnian vaccine issue, this one involving a support mission directed by the NATO SFOR headquarters, illustrated the difficulty US fiscal laws can cause even in a NATO environment. The World Health Organization requested SFOR's support in distributing a large quantity of polio vaccine across Bosnia. SFOR headquarters in Sarajevo tasked each of the three divisions to transport the vaccine to designated villages throughout the divisions' sectors, but there were too few scheduled missions to the villages to carry the vaccine on a space-available basis. By tasking the Turkish, Nordic-Polish and Russian brigades with the bulk of the vaccine delivery missions, and tasking US troops to assume some of those allied brigades' Dayton enforcement operational missions, the American-led division was able to execute the humanitarian aid mission without violating US law.

Interoperability training and support to the parties' forces in Bosnia. During the transition from a relatively robust US IFOR operation to the

Crafty scouts mark the trail for follow-on elements. Costly maneuver damage also jeopardizes relations with civilians.

Damage to roads caused by US forces may be the basis for a claim by a local government or, in the case of private roads, the individual owners. Maneuver damage claims are handled from separate claims funds, not from the unit O&M accounts. Prompt reporting of damaged roads, followed by equally swift claims investigations, adjudications and payments, may provide needed assistance to the indigenous population, without engaging in tortured justifications for road repairs with only marginal benefit to US forces.

leaner US SFOR presence, our artillery units greatly reduced their fire support capability. In the event of a return to hostilities, artillery support from allied units might have become essential. Under these operational conditions, was a request to authorize US transport of Russian artillery pieces to an established range for gunnery interoperability training a request for logistic support? Again, in the absence of an ACSA with the Russians, logistic support was not permitted.

By preparing a justification for the interoperability training that spelled out why US and Russian personnel needed to understand each other's capabilities, limitations and fire control procedures, it became apparent the training was operationally necessary. This was not a logistic support request by the Russians; it was a request by the division operations staff for the Russians to participate in a gunnery exercise along with American artillerymen to ensure the two groups could properly respond to real-world artillery missions.

The requirement for the former warring factions in Bosnia to place all heavy weapons in storage sites and cantonment areas led to another fiscal issue.

Getting the equipment there was the responsibility of the Serb, Muslim and Croat Bosnian armies. Because of limitations on the maximum weaponry permitted each side, the tanks, artillery pieces and other heavy weapons picked for destruction by the parties were generally the nonoperational ones in their inventories. Lacking heavy-equipment transporters and fuel to run the operational vehicles, the parties' forces found it difficult to comply with the directives to consolidate weapon storage sites and to transport equipment for destruction. They requested aid from NATO—diesel fuel or the use of heavy equipment transporters—to comply.

The ordinary rule is that logistic support cannot be rendered to other nations' forces without an ACSA or some form of security assistance program. However, reasoning that the US mission was one of peace enforcement and reasonably anticipating that destroyed equipment was equipment that could not be used against the IFOR/SFOR mission in the event of a return to hostilities, lawyers advised decision makers that providing fuel or transporters fit the operational mission of US forces. The issue of providing fuel or transporters to consolidate

equipment at fewer weapon storage sites was a closer call. Since one of the primary NATO missions was conducting weapon storage site inspections and inventories to ensure compliance with the Dayton Accords, and since consolidating storage sites eased that job, the support was considered operational. Having fewer weapon storage sites reduced the potential number of targets and sites intelligence personnel needed to monitor. The restrictions placed on this support included ensuring the parties' forces had exhausted their means of transport before US or NATO support would be provided.

Guidelines for Commanders

This discussion is not an exhaustive treatment of all the fiscal law problems arising in the Haitian and Bosnian deployments and represents only a small number of the fiscal issues that actually arose. The commanders involved were able to accomplish their missions without violating fiscal law because they recognized the problems, involved operators and lawyers in the problem-solving effort and contemporaneously documented the reasons for their decisions. For commanders in future contingency operations, the following framework is useful for analyzing fiscal issues:

● What is the overall mission and where does the mission lie on the spectrum of conflict? This articulation should involve a careful analysis of the execute order and the operational plan, including the sources of funding for the mission. If other documents are referenced, they must be examined as well.

● How does this specific mission fit into the overall operation? Does this specific mission match up with the sources of funding available? Does this mission help accomplish the larger mission? When the mission is one with a clear operational (as opposed to training) benefit to US forces, it is more likely to be supported. The more the benefit appears to tip toward the indigenous population or someone other than US personnel, the less likely it is supportable under O&M funding.

● Is this really a military mission? The more the mission appears to fall in the purview of the State Department, AID or some other government or non-government entity, the less likely it can be properly accomplished without reimbursement. HCA activities are limited; compare proposed activities with those in the DOD directive. If they exceed those in scope, HCA funding is probably necessary.

● Is the support requested operational or logistic? If it appears to be logistic support, are there any factors unique to this environment that could make a difference in how the support is viewed? Is there a contemporaneous, auditable record to support the decision that this is a mission properly executable with O&M funds? Merely stating that the mission is considered one of force protection will not make an HCA mission into an O&M mission. However, explaining the circumstances prevailing in the area of operations at the time and the rationale used to determine that the mission was proper will aid in defending the decision before GAO investigators.

● If the mission is one that cannot be accomplished by US forces with O&M funds, are other funds available? Or is there a method to accomplish the mission without expending O&M funds on it, by trading missions with another nation's forces?

There are few bright spots in the fiscal law applying to contingency operations. The rules are muddy, convoluted, complex and frequently hamper mission accomplishment. Until laws change the way contingency operations are funded, commanders will have to operate in an uncertain environment and, unfortunately, assume an unfair degree of risk when they spend O&M funds on tasks that are not clearly military. Commanders aware of the restricted uses of O&M funds can better protect themselves and their contingency mission. *MR*

NOTES

1. *United States Code* (*USC*), Title 31, Section 1301, Money and Finance (1982).
2. Ibid., Section 1341(a)(1)(A) (1982).
3. Ibid., Section 1349(a) (1982), "An officer or employee of the United States Government. . .violating Section 1341(a). . . shall be subject to appropriate administrative discipline including, when circumstances warrant, suspension from duty without pay or removal from office." The criminal penalties are found in 31 USC, Section 1350 (1982) and provide for a maximum sentence of two years confinement and a $5,000 fine. While there have been no criminal prosecutions for violations, there have been a variety of administrative sanctions imposed against Army personnel who have violated the Anti-Deficiency Act.
4. See DOD Directive 7200.1; DOD 7000.14-R, Financial Management Regulation, Volume 14, Chapter 9; Army Regulation 37-1; or Air Force Regulation 177-16.

5. This policy was set forth in a 19 Dec 1994 memorandum from the Undersecretary of Defense (Comptroller) to the Secretaries of the Military Departments, Subject: Violations of the Anti-Deficiency Act.
6. *USC*, Title 31, Section 1535 (1982).
7. *USCA*, Title 10, Section 2342 (Supplement 1997).
8. Memorandum from OCJCS/LC to J-7, Subject: Scope of Permissible Road Construction HCA, dated 12 May 1995 (copy on file with the author). The legal adviser noted that although cost was not determinative in HCA funding, the more expensive a project, the less likely it would meet the criteria for being basic or rudimentary.
9. These claims would be considered under the *Foreign Claims Act*, *USC*, Title 10, Section 2733.
10. MSG 041658Z Nov 94, for Joint Staff to CINCUSACOM, Subject: Support of Non-DOD Multinational Forces In Haiti.

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Crowds, Mobs
and
Nonlethal Weapons

CWO-5 Sid Heal, US Marine Corps Reserve

PEACEMAKING is neither painless nor easy but fraught with danger, misperceptions and criticism. According to one political leader, "Making peace, I have found, is much harder than making war."[1] To accomplish those difficult peacekeeping missions, being considered just is more important than being considered powerful. The payoff can be substantial, for "the greatest honor history can bestow is that of peacemaker."[2]

Peacekeeping as Warfighting

An examination of peacekeeping and warfighting, despite their similarities, is a study of contrasts. First, peacekeeping operations are highly sensitive to political objectives and tend to cast the military in a supporting, rather than a leading role. The military has developed doctrine and honed procedures to prepare for and execute war. Peacekeeping operations, however, present new problems for which there are few readily apparent solutions.

Second, adversaries during peacekeeping operations are often amorphous and difficult to identify. Factions with shifting loyalties and alliances can be friend one day and foe the next—and then friend again the day after. These factions often seek to further their cause not by winning but by provoking a situation in which they can be seen as victims. While enemies can be conquered, this mercurial aspect of peacekeeping adversaries makes the application of *any* force difficult.

Third, while force is the predominate means of imposing the commander's will in war, it can actually be counter-productive in peacekeeping missions. Peace imposed at any cost can be viewed as tyranny. Roman historian Publius Cornelius Tacitus noted, "A bad peace is even worse than war."

Fourth, destructive influences in a community always compete with society's legitimate right to restrain them. Citizens either comply with legitimate

> *While a violent mob is as formidable as an army, it lacks conventional attributes such as formal command and control architecture, definable objectives or a unified focus of effort. There is no independent will, but rather a loose and temporary coalition of intentions. . . . Furthermore, unlike armies, mobs can win by losing, because an issue is frequently decided by how the mob was treated, not whether their actions were successful.*

mandates or defy laws and even efforts to enforce them. That tension does not disappear when stability is restored; civilian law enforcement merely replaces the military peacekeeping force.

Citizens as Warriors

The change from law-abiding community members to dangerous and menacing antagonists has been studied for centuries. In 408 BC, Greek dramatist Euripides noted that "mobs in their emotions are much like children, subject to the same tantrums and fits of fury."[3] Millennia later, mob members, like children, still tend to be emotional, unreasoning and immature. They are inclined to act out their frustrations rather than attempt a meaningful resolution. Fortunately, mobs do not simply spring forth, but grow and escalate.

The US demonstrations concerning civil rights and the Vietnam War during the 1960s and early 1970s generated a large amount of research on mob characteristics. Based upon this work, some generalizations provide a snapshot view of the process.

The accepted traditional customs, attitudes and manners in society, collectively called mores, set the standards for acceptable conduct. When a person is caught up in the emotional sway of a mob, a

number of psychological influences tend to reduce the impact of our mores or, in some cases, completely negate them. Eight distinct psychological factors have been identified:

● Novelty. Individuals may subconsciously welcome a break from the routine and react enthusiastically to new circumstances.

● Mobs provide a release for pent up frustration and anger, even if a person is only marginally committed to the issue at hand. For example, during the latter stages of the 1992 Los Angeles riots, interviews of looters by the media revealed that many

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Anyone who has ever been in both riots and battles can attest to similar emotional reactions. Both foster widespread feelings of rage, fear, confusion, anguish, indignation and excitement. Both give rise to the best and worst of human behaviors. Feats of extraordinary heroism are as commonplace as despicable acts of cowardice and selfishness.

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had never heard of Rodney King nor were even aware of the jury verdict.

● Members of mobs feel a sense of power. In fact, if authorities are unable or unwilling to intervene, this sense of power increases.

● With this sense of power are feelings of irresponsibility, and even a sense of righteousness. The single-mindedness of the mob causes individuals to rationalize their actions until they become convinced the mob is morally justified.[4]

● The individual is prone to accept suggestions from anyone who appears to have a better grasp of the situation. Many in the mob are not even aware of the real causes of their problems and readily accept the suggestions of others without considering the consequences.

● People become emotionally stimulated, and even if they do not share the same indignation or resentment as others, they feel sympathetic. This shared emotion produces contagion—people imagine themselves in the same difficulties and experience similar feelings of frustration and resentment. Thus, the mob "feeds itself" with emotional excitement. This spiral of emotions continues until it exhausts itself or is stopped by intervention.

● The contagion increases the urge to conform and people are galvanized to imitate others. Because mobs often attack anyone who resists, the urge to conform is enormous.

● As individuals accept the group's ideas and actions, their sense of identity tends to blur and they feel even stronger affiliations for the mob. This, in turn, encourages a release of social restraints because the individual feels that because he can not be identified, he will not be blamed or held responsible, no matter what he does.

Mobs as Adversaries

The lack of an enemy in peacekeeping operations should not be confused with a lack of adversaries. Factions of the community may be aligned along family or ethnic ties, religious, economic or political beliefs—or any combination. To further complicate matters, when circumstances dictate, these factions often ally temporarily with other factions. With these dynamic relationships, the only thing certain is that intervention of any type will appease some, while infuriating others.

Mobs do not fit the customary understanding of an enemy. While a violent mob is every bit as formidable as an army, it lacks conventional attributes such as formal command and control architecture, definable objectives or a unified focus of effort. There is no independent will, but rather a loose and temporary coalition of intentions. Members are driven by emotion rather than ideology or a sense of duty. Leaders are more likely to be charismatic than competent, so "operations" that are just as likely to be spontaneous as preplanned. Furthermore, unlike armies, mobs can win by losing, because an issue is frequently decided by how the mob was treated, not whether their actions were successful.

The simplest grouping of people is called a *casual crowd*. Members have no common interest or purpose and simply happen to be in the same place at the same time. Their emotional level is extremely low and people see themselves as individuals rather than members of a group. It takes substantial provocation to motivate this type of crowd to violence.

A *cohesive crowd* assembles for a specific purpose. While members still see themselves as individuals, they may have intense internal discipline. For example, spectators at a sporting event are often highly emotional and charged with energy. This kind of crowd can erupt into violence, though it occurs infrequently.

The *expressive crowd* is characterized by a unified expression of sentiment and frustrations. Members are held together by a common purpose and are looking for leadership. Their emotional level can range from resigned to highly agitated. When

agitated, they can be quickly aroused to action if they become frustrated at making their dissatisfactions known.

The *aggressive crowd* has very strong feelings. Members of this group have a definite, often expressed, unity of purpose. The individual's identity is almost completely lost as he or she embraces the feelings of the group. Members seethe with emotion and are impulsive, willing to be led into lawless or destructive behavior. Of all the crowds, this is the most dangerous and can be quickly incited to become a mob.

The *aggressive mob* is the next step in the progression, distinguished from its less-harmful namesake crowd only by some type of violent or lawless behavior. The object of the violence can be a person or property or both. A riot often erupts by providing a means of release for pent-up anger and emotion. Primarily motivated by emotion, this mob's actions tend to be short-lived.

Expressive mobs seek release of pent-up emotions and view violence as a legitimate means of making their cause known. Because of their frustration and demand for a forum, members are unreasonable and often make outrageous demands.

The *acquisitive mob* is motivated by a desire to acquire something. Looters exploit the chaos and confusion resulting from an existing riot. Because members are primarily motivated by greed, the resulting riots tend to last much longer. However, because the emotional level is usually lower than other types of mobs, they tend to be more easily controlled.

Escape mobs are characterized by panic and are especially dangerous. Usually, only this type of mob can instantaneously escalate beyond the control of the authorities.

The City as a Battlespace

It is important to understand some general characteristics of riots. They almost never occur in the morning or during inclement weather, rarely occur in rural areas and almost always last less than one day. Rioters are mostly unarmed males in their late teens through late twenties. When they do arm themselves, it is with rocks and bottles or primitive weapons such as clubs and slingshots.[5] Riot leaders emerge from the mob rather than being chosen by it. Because the city is their battlespace, authorities must recognize seven characteristics that distinguish it from rural terrain.

● Urban terrain provides a defensive advantage. Easily fortified positions offer cover and concealment. Authorities must maneuver over channelized and compartmentalized terrain, vulnerable to missiles thrown from upper stories and behind buildings.

● Rioters frequently move up and down multiple-story buildings or even through basements, sewers and crawl spaces. This three-dimensional quality

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Riots are caused by deep-seated social problems such as bigotry, economic disparity, perceived injustice or discrimination. These entrenched and convoluted influences may have existed for centuries and are well beyond the abilities of any peacekeeping force to reconcile. However, the spark which ignites these emotion-laden issues frequently results from an act of authority.

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makes for difficult tactics, command, control and communication.

● Adversaries are engaged at extremely close ranges, often less than 20 feet. Targets appear fleeting and along restricted lines of sight.[6] Snipers are just as likely to be armed with handguns and take shots of opportunity as they are to use a long rifle from an established position.

● Communications are often restricted and sporadic. Coupled with spontaneous and brief encounters at close ranges, small units must operate independently, yet rely upon adjacent units for reinforcements and higher headquarters for logistical support and sustainment. Consequently, centralized planning and decentralized control are critical.

● Effects of the civilian population are everywhere. It is virtually impossible to move through a populated area without being detected. Likewise, people may become involved in tactical operations simply because they are present.

● Unlike the rural environment, which has few reflective surfaces and no direct lighting, the urban environment has both. A city is characterized by harsh shadows and glaring, often dazzling lights. This uneven ambient light interferes with night vision.[7]

● More than terrain features, buildings have value. Besides having tactical significance, buildings may have cultural, historical, religious or political importance.

Riots as Battles

Anyone who has ever been in both riots and battles can attest to similar emotional reactions. Both foster widespread feelings of rage, fear, confusion, anguish, indignation and excitement. Both

give rise to the best and worst of human motives and actions. Feats of extraordinary heroism are as commonplace as despicable acts of cowardice and selfishness. However, there are two fundamental differences. The first is that while battles are joined by deliberate and conscious effort, riots erupt from a unique and temporary set of circumstances. This is because what *starts* riots and what *causes* riots differ distinctly and fundamentally.

Riots are caused by deep-seated social problems such as bigotry, economic disparity, perceived injustice or discrimination. These entrenched and convoluted influences may have existed for centuries and are well beyond the abilities of any peacekeeping force to reconcile. However, the spark which ignites these emotion-laden issues frequently results from an act of authority. Even an unintentional or benign action can unleash emotional and aggressive responses. Even a lack of intervention can become a catalyst because members of a mob feel empowered when authorities seem unable or unwilling to stop them.

The second difference between riots and battles has to do with preparation. While battles are fought after careful deliberation and planning, riots follow a more impulsive and unconstrained path. Battles are joined; riots evolve.[8] The progression from a law-abiding crowd to an unreasoning mob can occur very quickly but follows some identifiable steps which not only provide early warnings, but frequently offer opportunities to intervene at earlier and less dangerous stages. The most essential factor in understanding this progression is recognizing the difference between a crowd and a mob. This distinction is especially critical in countries such as the United States where crowds are constitutionally protected. Unnecessarily interfering with a crowd will produce legal—as well as tactical—problems.

Crowds are simply gatherings of people. They are lawful and perhaps vocal and expressive, but they will generally follow instructions from legitimate authorities. Tactical crowd-control actions are usually limited to traffic and pedestrian flow or resolving minor disputes over issues such as seating at a parade, blocking traffic or trespassing. Mobs, on the other hand, are belligerent, provocative and violent. They represent a formidable threat and are almost impossible to control. Tactical actions are usually defensive and protective in nature and include efforts to defend buildings, prevent looting and arson, and avoid injuries. Crowds require control; mobs require intervention. The importance of preventing a crowd from evolving into a mob needs no further justification.

Rules of Engagement as Laws of War

Precise, appropriate rules of engagement (ROE) are the linchpin in peacekeeping operations. If a government loses or abandons power, US ROE can help provide a framework for civil control. Without them, a peacekeeping force has only impromptu and arbitrary rules. While other duties are important, the predominant peace-keeper's roles are restoring and keeping the peace.

However a predicament materializes because "keeping the peace" and "fighting for peace" are distinctly different missions and require different rules of engagement. Peacekeeping operations are typically constrained to use the minimum force necessary to accomplish the mission. Rules of engagement in these circumstances are designed to prevent the start or escalation of a conflict. Hence, defensive ROE require demonstrated hostile intent before deadly force is justified. Such force policies more closely resemble those for law enforcement agencies than military units. Accordingly, missions encountered by peacekeeping forces require adapting and using force proactively.

While this concept sounds easy, difficulties arise in application. Historically, ROE have only been required to address issues involving lethal force. With the advent of nonlethal devices, commanders are gaining an increasing ability to impose their will at an earlier stage in a conflict. However, because the effects of nonlethal options are temporary, adversaries quickly become more resilient—requiring the repeated use of force. When describing this phenomenon, one frustrated commander related that his efforts were the equivalent to "plowing water."

Second, doctrine has supported lethal options for thousands of years but is virtually nonexistent for nonlethal use. Tactical remedies tend to be improvised and temporary.

Successful peacekeeping operations depend on proper ROE. In societies so bereft of meaningful government that military intervention is necessary to restore or maintain peace, ROE become the de facto "law of the land." In this role they personify the minimum standards of civilized conduct. Consequently, ROE become the measuring standard for just and humane peacekeeping forces. Crafting these rules is therefore critical for forces assigned to peacekeeping missions. International laws, treaties, national policies and customs may serve as guidelines, but completely adequate criteria have never been crafted.

Weapons of Peace

When dealing with riots and mobs, success more likely depends on not the *amount* of force but rather

A confrontation-management team echelons at Rhein-Main Air Base as German police confront demonstrators beyond the perimeter fence, 12 December 1982.

Trauma-inflicting munitions are high on the force continuum. Examples might include batons, saps, stingballs, bean bags, foam and pellet munitions. They are generally the point on the force continuum which separates nonlethal from deadly force. Highest on the spectrum are lethal options. Although the particular conditions that merit deadly force should be identified, lethal options should always be regarded as part of the force continuum and not as a separate option. This avoids ambiguity and confusion as to when they are authorized.

the type of force and how it is used. Nonlethal weapons may take many forms, including foams, water, lights or even smells.[9] Thus, the "weapons of peace" may not be weapons at all.

Generally speaking, there are four classes of nonlethal technology. The most well known are antipersonnel options designed for restraining individuals. The second class is anti-mobility and includes devices that interfere with transportation. The third is area delay or denial, preventing passage through or access to an area. The fourth class attempts to affect an infrastructure. These devices may gather intelligence, as from computers or communications, or degrade or inhibit their use by an opponent. Power, water, communications and mass transportation are common examples of functions which could be targets for this class.

In peacekeeping operations, a force that employs nonlethal options gains five distinct advantages over one that does not.

First, nonlethal options are more humane.

Second, they allow a commander to exert more control over a situation. Because nonlethal options require substantially less provocation before engagement, a commander can intervene at ear-

lier and less dangerous stages of a situation.

Third, they provide a commander with much more flexibility and freedom of action. A commander can tailor his response to more properly fit the circumstances.

Fourth, they are less likely to escalate violence. Consequently, bystanders are less likely to be sympathetic toward persons who defy a peacekeeping force but are not killed. Further, should it be necessary to resort to lethal force, the fact that nonlethal options had proven ineffective supports the need for escalation.

Finally, these options are less likely to raise public outcry. All peacekeeping operations are controversial and public support may ultimately be decisive.

Fundamental to employing nonlethal alternatives is a thorough understanding of the force continuum. Historically, military objectives have been achieved by killing or destroying an enemy. Force was always deadly; hence, effectiveness was judged by the extent and speed of death or destruction. A huge gap existed between presenting a threat and carrying it out. Viewing force as a continuum allows an array of options. The beginning of this continuum is initiated by a threat, while deadly force takes its

> *Peace imposed at any cost can be viewed as tyranny: Roman historian Publius Cornelius Tacitus noted, "A bad peace is even worse than war." Destructive influences in a community always compete with society's legitimate right to restrain them. Citizens either comply with legitimate mandates or defy laws and even efforts to enforce them. That tension does not disappear when stability is restored.*

proper position at the other end. Nonlethal alternatives allow a commander to increase and *decrease* the amount of force necessary to accomplish a mission. Movement up and down the force continuum is generally continuous and seamless, yet a careful examination reveals five broad categories.

Entry into the force spectrum begins with a threat of some sort. This may be an "expressed threat," such as a commander's statement about the consequences of defiance, or an "implied threat," which leaves the consequences to the imagination. Of the two, the implied threat is far more powerful, predominantly because what a peacekeeping force *can* do and what it is *willing* to do are often farther apart than an adversary realizes. The next major category involves physical force that is not coercive in nature. Generally, such responses include devices that engage an antagonist without intervention by members of the peacekeeping force. Examples may include concertina or barbed wire, caltrops, sticky foam or aqueous foam enhanced with oleoresin capsicum or covering caltrops, barbed wire or other obstacles. These options place relatively low on the force continuum, not because of the injury they can cause, but because they are benign without the willful defiance of the individual attempting to thwart them.

Higher on the continuum would come munitions that cause physical discomfort but fall short of inflicting trauma. Such options would include flashbangs, tear gas and pepper spray. Although the discomfort or injury may be substantially less than that from caltrops or concertina wire, the employment of these options requires a decision to intervene. Factors such as training, maturity, discipline, prejudice, emotion and judgment affect their use and require them to be viewed more closely than those options that involve only one will.

Still higher on the continuum are trauma-inflicting munitions. Examples might include batons, saps, stingballs, bean bags, foam and pellet munitions. They are generally the point on the force continuum that separates nonlethal from deadly force. Highest on the spectrum are lethal options. Although the particular conditions that merit deadly force should be identified, lethal options should always be regarded as part of the force continuum and not as a separate option. This perspective avoids ambiguity and confusion as to when they are authorized. Many situations rapidly evolve from less dangerous circumstances before requiring deadly force to resolve. Individuals with a variety of options are more likely to be proactive, retain the initiative and quickly recognize situations requiring deadly force than those compelled to examine a situation isolated by "either/or" parameters.

Late in World War II, President Roosevelt stated, "Peace, like war, can succeed only where there is a will to enforce it, and where there is available power to enforce it."[10] Making peace is a noble calling but not an easy pursuit. The road to peace more closely resembles a Mobius strip: twisted, never ending and somewhat mysterious. **MR**

NOTES

1. Statement made by Gerry Adams, Irish President from Sinn Fein political party, on Charlie Rose WNET television show.
2. President Richard M. Nixon's first inaugural address, 20 January 1969.
3. Euripides, *Euripides*, "Orestes," translated by William Arrowsmith, University of Chicago Press, Chicago, IL, 1959.
4. Often identified as the "mob mentality."
5. The nature of their weapons does not imply that mobs are harmless. The oldest form of execution is stoning and hundreds around the world are killed and injured from mob violence each year.
6. Rick Baratta, "Firearms Training," *Law and Order Magazine*, March 1999, 65. Approximately 90 percent of all officer-involved shootings occur at less than 20 feet and about 75 percent occur at about 10 feet.
7. Neil McAleer, The Body Almanac: *Mind-Boggling Facts About Today's Human Body and High-Tech Medicine* (Doubleday & Company, Garden City, New York, 1985), 34. There are two reasons for this. When exposed to bright light, the pupil of the eye will constrict in about a half-second. Additionally, night vision is gained largely through a fluid in the eye called rhodopsin. When exposed to bright light, this fluid quickly "bleaches" out, but may take as much as 30 minutes to return to its previous color.
8. The single exception is when something causes a crowd to panic. This type of mob is fleeing from some perceived threat such as a flood, fire or earthquake.
9. In frigid weather, a spray of water can be a strong deterrent. In freezing weather, ice provides anti-traction against both vehicles and pedestrians. Malodorous agents release obnoxious or nauseating odors.
10. President Franklin D. Roosevelt, during a speech at the Foreign Policy Association in New York City, 21 October 1944.

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51 The Highway to Basra and the Ethics of Pursuit ©

by Stacy R. Obenhaus

In the waning hours of the Persian Gulf War, UN coalition aircraft attacked an Iraqi military column withdrawing from Kuwait City on a highway to Basra, Iraq. The planes bombed the front and rear of the column, blocking the withdrawal and creating a huge traffic jam, then strafed the vehicles trapped within.[1] When it was over, hundreds of wrecked vehicles and dozens of Iraqi corpses littered the highway—devastation a *Washington Post* reporter dubbed "The Highway of Doom."[2]

The military justified the bombing as consistent with military doctrine and international law, but critics condemned the attack as immoral.[3] Some simply labeled it a "slaughter" or a "massacre."[4]

Others used "just war" terminology to discuss the action's morality.[5] Thus, one claimed that the operation "was not a fight by *jus in bello* standards . . . for those incinerated had no capacity to fight back."[6] Another went so far as to confer on the retreating soldiers the moral status of noncombatants because the attack was simply a "turkey shoot."[7]

However, in terms of standard ethical analysis, these criticisms were inadequate. All lacked any deliberate, thorough explanation of applicable ethical criteria. They gave scant attention to morally relevant facts about the coalition forces' actions. They thereby failed to address credibly a critical moral issue that may recur in the limited conflicts of the post-Cold War era: whether a military force with overwhelming superiority can justify its pursuit and destruction of an inferior enemy force which seems to have given up the fight.

This is a critical issue for two reasons. First, the use of decisive force is a central component of US military doctrine, and Army field manuals counsel that the destruction of retreating enemy forces is the primary goal of pursuit.[8] Second, and perhaps more important, at the end of the Persian Gulf War, the media focused much attention on the scenes of destruction along the Highway of Doom, and the fear that such media attention could adversely affect public opinion may have led US leaders to end the war sooner than they might have otherwise.[9]

Military and political leaders must engage a public increasingly concerned about the morality of modern conventional war. This article outlines just such a discourse. It asks whether coalition forces violated just war criteria by mercilessly bombing the Iraqi column. This question concerns the *jus in bello* criterion of proportionality. Assuming the Persian Gulf War was itself morally justifiable, applying this criterion suggests that the bombing did not exceed the moral limits of war.

The Principle of Proportionality

Just war thinking divides the principles for thinking about the morality of war into two categories, the *jus ad bellum*, or the criteria for going to war in the first place, and the *jus in bello*, or the requirements for conducting war.[10] This discussion assumes what has been debated elsewhere, namely that the coalition's decision to use military force against Iraq was morally justified and therefore satisfied the *jus ad bellum* criteria. If the coalition's actions did not satisfy these criteria, the bombing was wrong. If the coalition was right to go to war, then the question whether the bombing was justified remains. Thus, while the

answer to the *jus ad bellum* question is not indisputable, the *jus in bello* question raises the more pressing issue that most concerned the American public and its leaders.

The primary *jus in bello* criteria—the principle of discrimination and the principle of proportionality—concern the rules of engagement, how war is fought. The principle of discrimination forbids the direct, intentional targeting of noncombatants.[11] Whether the bombing was proper does not invoke this principle because it appears that the Iraqi column contained only military personnel who had been occupying Kuwait City.[12] Where noncombatants are not present, only the principle of proportionality limits the use of weapons.[13] Thus, with regard to whether the bombing satisfied just war criteria, the appropriate focus is on whether the bombing violated the principle of proportionality.[14]

In general, applying the principle of proportionality means determining "the upper limits of the use of force that may rationally be employed" in achieving just war goals.[15] Put simply, one should not maim an opponent if it is possible to disarm him without doing so, and one should not kill an opponent if it is possible to secure the desired end by injuring him.[16] Pursuit of legitimate objectives still requires using the minimum force necessary. The principle of proportionality affirms that having satisfied the principle of discrimination does not justify limitless killing of combatants.[17]

Applying Proportionality

William V. O'Brien explains that applying the principle of proportionality involves two steps. First, leaders determine whether the harm their tactics intend is proportionate to a discrete, legitimate military end. The legitimacy of the military end is a matter of international law and judgments of reasonableness in light of standard military practice. Second, leaders must decide whether the harm is proportionate to the object of the war—the just cause. Calculating the proportionality of means employed involves balancing the probable good and evil in a just war in light of the probability of success.[18]

O'Brien's model raises the question of proper war aims during Desert Storm. This article assumes that the coalition's war aims satisfied the *jus ad bellum* criteria. The aims expressly set forth in UN Security Council Resolution 678 authorized coalition forces to use "all necessary means" to enforce Security Council Resolution 660, which called for Iraq to withdraw from Kuwait unconditionally.[19] The legitimacy of the coalition aim of ensuring regional stability and security by reducing Iraqi military power has been debated since the UN resolutions did not authorize it in so many words, but there are three reasons for affirming it nevertheless.[20] First, it was a clear but unspoken goal of the United States.[21] Second, commentators have offered rational arguments that this aim satisfied the *jus ad bellum* criteria.[22] Third, UN Resolution 678 expressly authorized the Coalition to use "all necessary means . . . to restore international peace and security in the area."

The more difficult question is how to apply O'Brien's model in a concrete historical setting. Paul Ramsey gives an example: the propriety of using incapacitating gas in counterinsurgency warfare. Using a nauseating gas against entrenched enemy forces appears to make war less destructive in the target area and therefore more proportionate. The object of modern war is incapacitation rather than death, and using such a gas instead of flamethrowers would serve that end without unnecessary killing. However, the use of incapacitating gas could well escalate to the use of deadly gas by an enemy, rendering an act that appears proportionate in a battle's immediate context *disproportionate* when one considers all possible consequences.[23] Ramsey's tear gas illustration shows that the question of proportionality can involve weighing a favorable balance of immediate good and evil effects against the possibility of an unfavorable

imbalance of more distant good and evil effects.

The literature of the just war tradition does not appear to give as much attention to issues of proportionality as it does to issues of discrimination, perhaps due to an impression that the proportionality rules are too vague and permissive to produce meaningful limitations. Decisions of proportionality necessarily involve calculating probabilities and anticipating unknown consequences of war.[24] For this reason, certain historical battles must serve as a sort of case law, providing concrete illustrations of what limitations the principle of proportionality might set. This article proposes two.

The first is based on observations James Turner Johnson offered about a classic battle for strategic *position*. In 1862 General Henry W. Halleck's Union Army moved south out of Tennessee into northern Mississippi to seize Corinth and cut the Confederates' only rail line into Memphis. Although Corinth contained a Confederate army of approximately 70,000 men, Halleck did not intend to achieve his objective by directly attacking but by outmaneuvering them so they would have to abandon the city without a major battle.[25] Halleck succeeded, capturing Corinth with minimal battlefield deaths because he entrenched his army around most of the city but avoided complete encirclement so that the Confederate soldiers had an escape route. Halleck's war of position and maneuver thus provides an appropriate illustration of proportionate means in warfare.[26]

Wreckage of Combat Command A, 7th Armored Division, photographed by a German photographer during the Ardenned Offensive three months after Falaise. The column was destroyed north of Poteau, Belgium, on 18 December 1944.

The second proportionality case concerns a World War II battle that implicates what has been called the "strategy of *annihilation*," that part of US military doctrine which provides that the pri-mary goal of Army offensive operations is the destruction of enemy military forces.[27] Forcing the Axis powers' unconditional surrender in World War II required occupying their countries, something achievable only by destroying their war machines.[28] In late July 1944, American forces finally broke through German defenses that had bottled up the Allies in Nor-mandy. The Americans drove south and then east to come in behind the German defenses, nearly trapping an entire German army in what has been called the Argentan-Falaise pocket.[29] German forces retreating through the Falaise gap had no effective air support, and Allied air and artillery forces mercilessly bombed the columns, killing thousands of German soldiers.[30] Many escaped, however, and there has been considerable debate about whether Allied commanders should have completely surrounded and destroyed the German forces there.[31] Nevertheless, the Allied forces' massive and relentless attack constitutes a convincing proportionality argument for destroying a retreating force to shorten a conflict and reduce destruction in the long run.

The Highway to Basra

Applying the proportionality principle in this instance begins with a summary of what appears to have occurred on the Kuwaiti battlefield. The first coalition offensive action in the Persian Gulf War began on 16 January 1991, when American forces launched cruise missiles at targets inside Iraq. From that day until the day of the bombing on the highway, coalition air forces launched thousands of sorties against

Iraqi military forces.[32] This bombing caused thousands of Iraqi deaths before the ground war ever began.[33]

On 24 February 1991, the ground war began when US Marines attacked across the Saudi-Kuwaiti border and breached front-line Iraqi positions due south of Kuwait City.[34] Coalition ground forces stationed along the Saudi-Iraqi border further west later attacked directly into Iraq with the idea of driving northeast and then east into the flanks of the Iraqi position in Kuwait.[35] In the evening of 25 February, the Marines were closing in on Kuwait City from the south, though they were still several miles from the city.[36] That evening coalition intelligence units detected large-scale Iraqi troop movements in the city and intercepted Iraqi withdrawal orders from Iraq's central headquarters giving priority to commanders and their staffs.[37] Kuwaitis living near the highway observed the Iraqi column leaving the city in the dark of night and heading west toward Al Jahra where the highway ultimately led north toward Basra inside Iraq.[38]

Remains of the booty-laden Iraqi column that attempted to flee Kuwait City in the final hours of the Gulf War.

US commanders launched aircraft to stop the convoy by mining the highway in front of and behind the column and bombing the lead vehicles with cluster bombs. These first few attacks blocked the highway above Al Jahra, causing many vehicles to strike out across the desert.[39] For the next several hours, coalition planes continued bombing the vehicles up and down the stalled column, flying dozens of sorties out over the area.[40] Pilots used various phrases to describe the ease with which they bombed the column, including "turkey shoot" and "sport bombing."[41] The next day, a 2-mile long stretch of highway was littered with bombed-out vehicles, nearly all of which were civilian cars or trucks stolen from Kuwait City, many filled with goods looted from the city.[42] Although reports vary, perhaps as few as 2 percent of the bombed vehicles were tanks or armored personnel carriers.[43] After the cease-fire, approximately 1,500 wrecked and abandoned vehicles were counted on this stretch of highway, though it appears that more Iraqis fled their vehicles than were killed; only 200 to 300 dead were found among the wreckage.[44]

An application of the *jus in bello* principle of proportionality to the events described above must first review criticisms of the bombing, criticisms articulated in terms of just war criteria. A response on those very terms, however, demonstrates the weaknesses of these criticisms.

Kenneth Vaux concludes that the bombing constituted more killing than necessary to accomplish legitimate coalition objectives. He argues that whereas the UN resolutions called only for unconditional withdrawal from Kuwait, an additional and thus illegitimate coalition goal was dismantling Iraq's military capacity. He contends that in light of the call from Iraqi central headquarters for a withdrawal, and given the idea that such withdrawal was the sole legitimate goal of the war, bombing troops seeking to fulfill that goal "can only be called a massacre."[45] Vaux's argument raises a question regarding the second level of analysis in O'Brien's model: the question of proportionality with regard to ultimate war goals.[46]

There are two grounds for disagreeing with this judgment. First, as noted above decreasing Iraq's ability

to threaten its neighbors was arguably a legitimate goal of the coalition.[47] UN Security Council Resolution 678 authorized the use of "all necessary means" not only to enforce Resolution 660 but also "to restore international peace and security in the area." A fair reading of the latter phrase would authorize the diminution of Iraqi capacity to wage war, not only given Kuwait's geographic vulnerability and small population, but also given Iraq's large army, the threats of its leaders and its proven tendency toward aggression—against Iran in 1980 and Kuwait in 1990. As Michael Walzer argues, "it follows from the argument for justice that wars can end too soon. . . . Unless they create a `better state of peace,' [cease-fires] may simply fix the conditions under which the fighting will be resumed, at a later time and with a new intensity."[48]

However, even assuming that enforcement of Resolution 660 provided the limit of legitimate objectives, the coalition had a right not to view the Iraqi withdrawal orders as satisfying those objectives. Iraqi political leaders knew how to satisfy the United Nations. They knew the significance of Security Council resolutions and what was required to communicate acceptance of and compliance with those resolutions. Thus, in October 1990 Iraq had argued in the UN for Security Council action against Israeli killing of Palestinian protestors. After the temporary cease-fire in February 1991, Iraq offered a conditional acceptance of UN resolutions on Kuwait, and when that failed, Iraq finally communicated an unconditional acceptance of the resolutions.[49] Vaux's strict construction of the UN resolution calls in turn for a strict and unequivocal compliance with its terms. The coalition was thus entitled to view the Iraqis' nighttime withdrawal, without formal, official acceptance of Resolution 678, as not yet meeting the legitimate coalition goal of strict compliance with that resolution.

Second, the Iraqi withdrawal on the evening of 25 February did not clearly mark the beginning of a complete and unequivocal withdrawal from Kuwait. Officially Iraq had not accepted Resolution 678 and continued armed resistance of coalition forces at that time and in the days following the bombing.[50] There is little reason for blaming coalition military forces for viewing the withdrawal as anything other than a tactical retreat to a more secure part of the battlefield, or perhaps an attempt to reinforce the western portion of the Iraqi perimeter—which is what Coalition military leaders claimed to have suspected.[51] In short, the withdrawal fell short of even *equivocal* compliance with Resolution 678.

Another argument against the bombing raises a question regarding the first level of analysis in O'Brien's model: the question of proportionality with regard to discrete, legitimate military ends authorized by international law and by reasonable, standard military practice.[52] Thus, Jean Elshtain argues that the bombing violated *jus in bello* standards because the Iraqi forces "had no capacity to fight back."[53] Ramsey Clark echoes this claim, boldly stating that the coalition killed thousands of Iraqi soldiers who were "essentially defenseless," violating provisions of the 1899 Hague Convention that prohibited the use of excessive force.[54] Similarly, and with specific reference to the bombing, Walzer argues that the bombing was wrong because it was too easy: "A `turkey shoot' is not a combat between combatants."[55]

A weak assumption underlies these criticisms. It is the idea that if one's weapons outperform an opponent's, that alone makes pulling the trigger morally problematic. For one thing, Iraqi forces were consistently outgunned throughout the conflict. In the principal armored clashes of the war—at Medina Ridge and at 73 Easting—the thermal sights, higher rate of fire and greater firing range of US tanks resulted in decimated Iraqi tank forces.[56] One tank commander remarked that this, too, was "more like a one-sided clay pigeon shoot."[57] Thus, by the "whenever it gets too easy" standard, the bombing could hardly be seen as much more disproportionate than many other battles of the ground war. To be sure,

Clark takes just this position: The coalition's technological advantage means for him that a disproportionate use of force pervaded the coalition's battlefield activities.[58] But this claim goes too far, as it risks rendering an army with air or armor superiority incapable of fighting a just war.

Moreover, despite the lopsided nature of these battles, the Iraqi forces did have the capacity to fight and inflict injury, as the list of hundreds of coalition service members killed in action demonstrates.[59] Iraqi forces continued to shoot down coalition aircraft throughout the 100 hours of the ground war.[60] Indeed, coalition commanders who ordered the bombing of the Iraqi column calculated beforehand that antiaircraft fire might down as many as three coalition aircraft.[61] Thus, the suggestion that the Iraqi forces were totally defenseless is not correct.

One suspects, of course, that these critics are concerned about something more than an imbalance of firepower between coalition and Iraqi forces. Thus, Walzer makes the further point that the retreating army posed no threat except to its own people.[62] On the other hand, Clark's criticism seems aimed more at the justice of the war itself ("The assault on Iraq was a war crime containing thousands of individual criminal acts") rather than how it was fought.[63] The point, however, is that the mere imbalance of firepower between coalition and Iraqi forces on this occasion does not bolster the claim that the bombing was not a proportionate act of war. In short, an outnumbered, out- gunned combatant is still a combatant.

The weaknesses of these criticisms aside, one must still assert the affirmative argument that morally justifies the bombing, and this is where the aforementioned historical illustrations come into play. Thus, one might view the limited UN goal of evicting Iraqi forces from Kuwait through the lens of the Union Army's attempt to capture Corinth from the Confederates without a full-fledged battle. However, Iraq had a substantial army and a proven ability to threaten its regional neighbors. Given that Resolution 678 authorized restoration of peace and stability, it was justifiable to view the appropriate goals of the war as including efforts to significantly weaken Iraq's ability to continue threatening Kuwait and other neighboring countries. Indeed, according to Johnson, the principle of proportionality "may be further drawn out to include restraining the attacker from similar acts in the future."[64] The flat desert terrain between Iraq and Kuwait, Kuwait's small territory and its tiny military made it especially vulnerable to Iraq's military strength and demonstrated ambitions in the region. Effectively enforcing Resolution 660 thus certainly required something more than the mere recapture of Kuwaiti territory.[65]

One might then argue that the goal of weakening Iraq's ability to threaten Kuwait better fits the illustration of the Allied forces pursuing the German army escaping through the Argentan-Falaise gap. However, Resolution 678 was no license for seeking Iraq's unconditional surrender. Indeed, US military leaders had outlined a plan to continue the war all the way to Baghdad, but there was neither a likelihood of success nor a prospect of domestic or international support for it, so the plan was shelved.[66] Moreover, the coalition likely did not want a power vacuum in the region, so total destruction of the Iraqi military was not considered an appropriate goal.

As a result, bombing the Iraqi withdrawal fits somewhere in between these two illustrations. It was part of a conflict that was more than a battle for strategic position and less than a war of annihilation. And yet the situation fits Walzer's argument that a cease-fire which comes too early does not serve the purpose of just war if it simply fixes the conditions under which the hostilities can resume in the future.[67] In 1980 Iraq had unjustifiably invaded Iran. In 1990 it did the same to Kuwait. During the war Iraq fired Scud missiles indiscriminately into Israel and Saudi Arabia.[68] Failing to seriously injure the Iraqi war machine

arguably risked more of the same.[69] Bombing the Iraqi column, which presumably contained the command units of the Iraqi forces occupying Kuwait City, may thus be viewed as part of the coalition's legitimate attempt to inflict the kind of injury on Iraqi armed forces that would result in what Walzer would call "a better state of peace" once a cease-fire went into effect. In short, weakening Iraqi military strength would ensure the continued enforcement of Resolution 660 and other pertinent resolutions by reducing Iraq's ability to repeat its aggression. It thus satisfies the second level of O'Brien's proportionality analysis: whether the harm is proportionate to the object of the war, balancing the probable good and evil in light of the probability of success.

Moreover, the bombing does not seem to have been disproportionate with regard to the immediate context of the ongoing battle. Coalition commanders justified the attack as an attempt to avoid possible reinforcement or regrouping of Iraqi forces elsewhere on the battlefield.[70] Given the uncertainties of battle, the assertion that coalition commanders did not know the composition, degree of unit cohesiveness or intent of the Iraqi column is quite credible. In fact, not all Iraqi troops were withdrawing or surrendering. Although the air campaign had severely degraded Iraqi positions along the Saudi border, other forces to the north and west retained much of their combat capability. Even after the bombing, Iraqi armored units took up defensive positions just west of the Kuwait border and engaged US forces.[71] In addition, coalition forces were attacking a column of vehicles, not the many soldiers who had abandoned their weapons and were wandering in the desert.[72]

Finally, the fact that one has achieved technological or tactical superiority over enemy forces should not alone bring into question what most would consider common sense about what is expected and morally acceptable in modern conventional war. Does a soldier err in firing a long-range mortar at enemy forces who are not within range to effectively shoot back? Were Allied warplanes, having achieved air superiority over France, justified in mercilessly bombing the retreating German armies, or even in strafing Rommel's "defenseless" staff car? That the coalition had achieved air superiority and could bomb virtually at will should not in itself raise any more moral issues than those raised by Allied air superiority and tactics in the latter days of World War II. Standard military strategy requires bombing an army in retreat to prevent a reorganization of forces for counterattack or consolidation of a better defensive line.[73] There is no reasonable argument that such conduct violates international law.[74] Thus, the bombing arguably satisfied the first level of O'Brien's model: the harm was proportionate to a discrete, legitimate military end, judged in the light of international law and standard military practice.

The foregoing discussion does not answer what may be the ultimate question, namely, whether something other than bombing the Iraqi column so mercilessly might have achieved legitimate coalition goals. There are three responses. First, it is not clear that the criterion of proportionality requires exhausting all possible alternatives in the midst of battle. This may seem to be an overly formal response to the question, but it makes sense in the real world. The heat of battle does not always allow for the measured consideration of alternatives. Walzer correctly notes that proportionality is often so tied to military considerations as to risk rubber stamping the judgments of military professionals.[75] There are no sound alternatives, however, to giving field commanders the benefit of the doubt in most instances, particularly where, as here, significant enemy resistance continued throughout the theater of operations.

A Soviet-made 122-mm multiple rocket launcher sits amid the destruction on the Kuwait-Basra Highway, March 1991.

Second, the only concrete alternatives in this case would

seem to be using less force or simply allowing the column to go on its way. Given the presumably legitimate goals of the coalition, both alternatives would have been irresponsible. A just war must be fought and won, and that means using decisive force to achieve legitimate objectives. Coalition forces trapped and similarly shot up other withdrawing Iraqi columns during the ground war.[76] Allowing some or all of these columns to withdraw, along with their equipment and organization intact, could have put at risk not only other coalition forces engaged in combat but also the Kuwaitis whom the withdrawing soldiers could continue to threaten in the future. Given the relative size and strength of Iraq's military before the war, the coalition was entitled to view any organized unit occupying Kuwait as a potential future threat to Kuwait's territorial and political integrity.

Third, the question about alternatives is unanswerable in the extreme. One may well ask whether the last shot of the war was absolutely necessary. One could almost certainly answer "probably not." But this seems to beg the question of whether the shot was entirely beyond legitimate goals of the war since it was fired.

The coalition actions along the highway to Basra were justified. The harm intended—disabling the Iraqi column withdrawing from Kuwait City—did not violate international law and was proportionate to a discrete, legitimate military end—disrupting Iraqi military leadership within the Kuwaiti theater and preventing a regrouping or reinforcement of Iraqi forces elsewhere. The harm was proportionate to the goal of ensuring regional stability by lessening the potential future threat from Iraq's military. The action was not clearly disproportionate even to a more limited goal of effectively enforcing UN Security Council Resolution 660 by reducing Iraq's ability to repeat its aggression in the near future.

This case study illustrates what an ethical justification of the Army's doctrine of pursuit might look like if it were expressed in terms of just war thinking. The tradition of just war thinking can intelligibly address hard questions raised by current military doctrine and the great destructive forces of modern weaponry, and it can provide a workable framework for ethical reflection about the use of decisive force against combatants. Military and political leaders alike should pay attention to just war criteria and their relevance to modern, conventional armed conflict. *MR*

1.Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress* (April 1992), 276, 514 and 631-32; and Michael R. Gordon and Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown & Company, 1995), 369-70.

2.William Claiborne and Caryle Murphy, "Retreat Down Highway of Doom: US Warplanes Turned Iraqis' Escape Route Into Deathtrap," *Washington Post*, 2 March 1991, section A, 1.

3.*Conduct of the Persian Gulf War*, 631-32.

4.Ramsey Clark, *The Fire This Time: US War Crimes in the Gulf* (New York: Thunder's Mouth Press, 1992), 54; and Kenneth L. Vaux, *Ethics and the Gulf War: Religion, Rhetoric, and Righteousness* (Boulder, CO: Westview Press, 1992), 33.

5. For a discussion of the ethical tradition of just war thinking, see generally James Turner Johnson, *Just War Tradition and the Restraint of War: A Moral and Historical Inquiry* (Princeton, NJ: Princeton University Press, 1981); Walters, LeRoy Brandt, *Five Classic Just-War Theories: A Study in the Thought of Thomas Aquinas, Vitoria, Suarez, Gentili, and Grotius* (New Haven, CT: Yale University Press, 1973); and Paul Ramsey, *War and the Christian Conscience: How Shall Modern War be Conducted Justly?* (Princeton, NJ: Princeton University Press, 1961).

6. Jean Bethke Elshtain, "Just War as Politics: What the Gulf War Told Us About Contemporary American Life," in *But Was It Just? Reflections on the Morality of the Persian Gulf War*, edited by David E. DeCosse (New York: Doubleday, 1992), 53.

7. Michael Walzer, "Justice and Injustice in the Gulf War," in *But Was It Just? Reflections on the Morality of the Persian Gulf War*, edited by David E. DeCosse (New York: Doubleday, 1992), 14.

8. US Army Field Manual (FM) 100-7, *Decisive Force: The Army in Theater Operations* (Washington, DC: Government Printing Office [GPO], May 1995). See Chapter 4 of FM 71-100, *Division Operations* (Washington, DC: GPO, August 1996) ("The pursuit's object is to completely destroy an opposing force."); and FM 6-20-30, *Tactics, Techniques, and Procedures for Fire Support for Corps and Division Operations* (Washington, DC: GPO, October 1989) ("The objective of the pursuit is to maintain relentless pressure on the enemy and completely destroy him.").

9. Gordon and Trainor, 413-16; Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston, MA: Houghton Mifflin Co., 1993), 470; and US News & World Report, *Triumph Without Victory: The Unreported History of the Persian Gulf War* (New York: Random House, Inc., 1992), 395-96.

10. The *jus ad bellum* criteria generally include the requirements of just cause; legitimate authority; right intention; probability of success; proportionality; and last resort. Some ethicists include other criteria such as comparative justice and a statement of war aims. See National Conference of Catholic Bishops, "The Challenge of Peace: God's Promise and Our Response," in *Just War Theory*, edited by Jean Bethke Elshtain (New York: New York University Press, 1992), 97-104; and John Howard Yoder, *When War is Unjust: Being Honest in Just War Thinking* (Maryknoll, NY: Orbis Books, 1996), 147-61.

11. Michael Walzer, *Just and Unjust Wars* (New York: Basic Books, 1977), 138-59. A classic study of the principle of discrimination is John C. Ford, "The Morality of Obliteration Bombing," *Theological Studies* 5 (September 1944).

12. Gordon and Trainor, 369; and Lawrence Freedman and Efraim Karsh, *The Gulf Conflict 1990-1991: Diplomacy and War in the New World Order* (Princeton, NJ: Princeton University Press, 1993), 402.

13. James Turner Johnson, *Can Modern War Be Just?* (New Haven, CT: Yale University Press, 1984), 58.

14. With regard to the *jus in bello*, there also exists a principle of proportionality that acts as a corollary to the principle of discrimination. This principle forbids an attack on a military target if the indirect, unintended civilian deaths or injury resulting from such an attack would be disproportionate to the benefits of the attack. Richard J. Regan, *Just War: Principles and Cases* (Washington, DC: Catholic University of America Press, 1996), 95-98; Ramsey, *War and the Christian Conscience*, 43. It was in this sense only that the military's justification of the conduct of the war discussed the principle of

proportionality. See *Conduct of the Persian Gulf War*, 611-12.

15.Johnson, *Can Modern War be Just?*, 120.

16.James Turner Johnson, *Just War Tradition*, 198.

17.Paul Ramsey, *The Just War: Force and Political Responsibility* (Savage, MD.: Rowman & Littlefield Publishers, Inc., 1983), 440 and 469; Johnson, *Can Modern War Be Just?*, 145; and John Langan, "An Imperfectly Just War," in *War in the Twentieth Century: Sources in Theological Ethics*, edited by Richard B. Miller (Louisville, KY: Westminster/John Knox Press, 1992), 465 (asserting that "it is possible to kill enemy soldiers without necessity or proportionate benefit").

18.William V. O'Brien, *The Conduct of Just and Limited War* (New York: Praeger Publishers, 1981), 40-42.

19.Security Council Resolution 660, 45 UN SCOR 19, 2932d mtg., UN Document S/RES/660 (1990); and Security Council Resolution 678, 45 UN SCOR 27, 2963d mtg., UN Document S/RES/678 (1991). All pertinent UN Resolutions are set forth in Appendix B to *Conduct of the Persian Gulf War*, 319-31.

20.Vaux, 5; and Steve Coll and William Branigan, "US Scrambled to Shape View of Highway of Death," in *The Media and the Gulf War*, edited by Hedrick Smith (Washington, DC: Seven Locks Press, 1992), 208.

21.Atkinson, 208; and Gordon and Trainor, 476.

22.George Weigel, "From Last Resort to Endgame: Morality, the Gulf War, and the Peace Process," 23 and 26; and James Turner Johnson, "Just War Tradition and the War in the Gulf," 450.

23.Ramsey, *The Just War*, 467 and 470-76.

24.Johnson, *Just War Tradition*, 198; and Alan Geyer and Barbara G. Green, *Lines in the Sand: Justice and the Gulf War* (Louisville, KY: Westminster/John Knox Press, 1992), 147.

25.James McPherson, *Battle Cry of Freedom: The Civil War Era* (New York: Oxford University Press, 1988), 416-17.

26.Johnson, *Just War Tradition*, 284-91.

27.Atkinson, 452. For an example, see the discussion on "Aims" in sections titled "Offense in Conventional Conditions" in chapters 4 and 5 of FM 100-61, *Armor- and Mechanized-Based Opposing Force Operational Art* (Washington, DC: GPO, January 1998).

28.Martin Blumenson, *United States Army in World War II. The European Theater of Operations: Breakout and Pursuit* (Washington, DC: Office of the Chief of Military History, Department of the Army, 1961), 7.

29.Ibid., 247-335 and 479-527.

30.Ibid., 555-58; Carlo D'Este, *Decision in Normandy* (New York: Harper Collins Publishers, 1983), 429-31; and Max Hastings, *Overlord: D-Day and the Battle for Normandy* (New York: Simon & Schuster, 1984), 300-06.

31. Dwight D. Eisenhower, *Crusade in Europe* (Garden City, NY: Doubleday & Co., Inc., 1948), 278-79 (acknowledging the Allies' failure to achieve "a complete battle of annihilation"); Carlo D'Este, 459-60; and Max Hastings, 313-15.

32. Kevin Hutchison, *Operation Desert Shield/Desert Storm* (Westport, CT: Greenwood Press, 1995), 68 and 83-130.

33. Michael Mazarr, Don Snider and James Blackwell, *Desert Storm: The Gulf War and What We Learned* (Boulder, CO: Westview Press, 1993), 131-32.

34. *Conduct of the Persian Gulf War*, 265-67.

35. Mazarr, Snider, and Blackwell, 136-46.

36. *Conduct of the Persian Gulf War*, 273-76.

37. Gordon and Trainor, 369.

38. Coll and Branigan, 206; Freedman and Karsh, 402.

39. Gordon and Trainor, 370; Atkinson, 451; and *Conduct of the Persian Gulf War*, 361.

40. Coll and Branigan, 204; Gordon and Trainor, 370; Hutchison, 30; and *US News & World Report*, 347-49.

41. Claiborne and Murphy, A10; and Atkinson, 451.

42. Mazarr, Snider, and Blackwell, 146; and Gordon and Trainor, 370.

43. Atkinson, 451. The military claimed that more than 200 Iraqi tanks were destroyed in the bombing. *Conduct of the Persian Gulf War*, 631. For the sake of argument, the lower 2 percent estimate will do.

44. Atkinson, 451; Coll and Branigan, 204-05; Gordon and Trainor, 370; Freedman and Karsh, 408; and *US News & World Report*, 409.

45. Vaux, 2-5 and 33.

46. O'Brien, 40, 42.

47. Weigel, 23, 26; and Johnson, "Just War Tradition and the War in the Gulf," 450.

48. Walzer, *Just and Unjust Wars*, 123.

49. Dilip Hiro, *Desert Shield to Desert Storm: The Second Gulf War* (New York: Routledge, Chapman and Hall, Inc., 1992), 211 and 392; and Hutchison, 133.

50. Gordon and Trainor, 387-95; and *Conduct of the Persian Gulf War*, 276-82.

51. *Conduct of the Persian Gulf War*, 514; and Coll and Branigan, 208.

52. O'Brien, 40 and 42.

53. Elshtain, "Just War as Politics," 53.

54.Clark, 38, 170 and 178.

55.Walzer, "Justice and Injustice in the Gulf War," 14.

56.Robert H. Scales, Jr., *Certain Victory: The US Army in the Gulf War* (Washington, DC: Brassey's, Inc., 1994), 261-62 and 298-300; *Conduct of the Persian Gulf War*, 750-51; Atkinson, 466; and Gordon and Trainor, 407-08.

57.Gordon and Trainor, 408.

58.Clark, 38-39 and 50.

59.*Conduct of the Persian Gulf War, 313-17.*

60.Atkinson, 456-57; Hutchison, 127 and 134; and Freeman and Karsh, 402.

61.Gordon and Trainor, 370.

62.Walzer, "Justice and Injustice in the Gulf War," 14. This is probably not true. After the official cessation of hostilities Iraq continued threatening Kuwait by, among other things, positioning large numbers of troops near the Kuwaiti border. Security Council Resolution 949, 49 UN SCOR, 3438th mtg., UN Document S/RES/949 (1994) (condemning recent Iraqi military deployments near Kuwait and recognizing them as a threat to peace and stability in the region).

63.Clark, 206.

64.Johnson, *Can Modern War Be Just?*, 58.

65.For a discussion of the challenges that flat desert terrain poses for defensive strategy, see section III of chapter 3 of FM 90-3, *Desert Operations* (Washington, DC: GPO, August 1993). As FM 90-3 explains, with the exception of certain cases such as mountain passes and ports, the retention of terrain normally makes little difference to the final outcome of a desert campaign. Instead, *the destruction of enemy forces* is the more critical issue.

66.Gordon and Trainor, 450-54.

67.Walzer, *Just and Unjust Wars*, 123.

68.Freedman and Karsh, 307-09.

69.Weigel, 23 and 27.

70.Coll and Branigan, 208. Apart from the aim of simply avoiding combat, the purposes of a withdrawal may well include concentrating forces elsewhere, preparing better defenses, or even maneuvering the opponent into an unfavorable position where it is more vulnerable to counterattack. See chapter 11 of FM 100-5, *Operations*.

71.*Conduct of the Persian Gulf War*, 514 and 632; Gordon and Trainor, 387-95; and *US News & World Report*, 334-36.

72.*Conduct of the Persian Gulf War*, 631. In fact, the coalition had distributed leaflets behind Iraqi lines informing Iraqi troops that the Coalition would not fire on them if they left their vehicles.

73.*Conduct of the Persian Gulf War*, 276 and 514.

74.Atkinson, 452; Walzer, "Justice and Injustice in the Gulf War," 14; and *Conduct of the Persian Gulf War*, 631-32.

75.Walzer, *Just and Unjust Wars*, 129-30.

76.Atkinson, 482-83; and Clark, 48 and 54.

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Photos:
US Army
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Leadership

Military leaders make tough calls about timing, placement, resources—and lives. Sometimes the most prominent risks are the careers of senior leaders who stand up on behalf of subordinates, who resign rather than compromise their integrity or who trade visible success for unheralded honor. To underwrite a culture of vision and effectiveness that adheres to principles, leaders have six responsibilities that John Sweetnam recounts. Lawrence Shattuck adds another function for leaders who want to establish a climate of dynamic communications and subordinate initiative—providing a sense of themselves and their ideas for virtual presence throughout an organization. Whether leaders have done all these things effectively may only be determined after the fact, so after-action reviews are crucial to organizational learning and institutionalized change. Fred Johnson goes one step further, urging leaders to critique themselves and their units and get it right quickly.

When Stars do not Align

Lieutenant Colonel John P. Sweetnam, Canadian Army

Treat people as if they were what they ought to be, and you help them to become what they are capable of being.
                                                                                                                                    —Goethe

IN MARCH 1993, soldiers of the Canadian Airborne Regiment tortured and murdered a teenage Somali thief. Widespread distrust of a subsequent military investigation led the Crown to order a public inquiry by Justice Gilles Letourneau. As he began to reveal organizational malaise at the highest levels of the military-bureaucratic interface, the government terminated the inquiry six months short of its original mandate—an unprecedented action.

Much of the Canadian military believes that the story has not been effectively told, that responsibility has not been assigned, that leadership is lacking and any similar situations in the future would bring similar problems. Indeed, as Latourneau points out in the executive summary of his report, the type of closure people seek after such disturbing events is still missing.

"Due to the Government's decision to terminate the *Inquiry*, we were unable to reach the upper echelons with respect to the alleged issue of cover-up and the extent of their involvement in the postdeployment phase. . . . Evasion and deception, which in our view were apparent with many of the senior officers who testified before us, reveal much about the poor state of leadership in our armed forces and the careerist mentality that prevails at the Department of National Defence. These senior people come from an elite group in which our soldiers and Canadians generally are asked to place their trust and confidence."[1]

Even worse, since the release of the truncated report, poorly considered new-age programs attempted to improve soldier morale. But because many of these efforts have ignored the deficiencies noted by Letourneau, they have often *damaged* morale. Peter Senge warns, "Vision without an understanding of current reality will more likely foster cynicism than creativity."[2]

The US military, in a somewhat analogous situation in 1975, released the "Malone-Ulmer" report,

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The spirit of constructive internal criticism has been the real contemporary competitive advantage of the US military, not all the gadgetry, however impressive. If this mentality can be maintained, the advantage will endure, but many contemporary pressures conspire to upset the balance.

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a study by the US Army War College on "Military Professionalism." It was not flattering:

"Gentlemen, a scenario that was repeatedly described to us during our interviews for this study includes an ambitious, transitory commander, marginally skilled in the complexities of his duties, engulfed in producing statistical results, fearful of personal failure, too busy to talk with or listen to his subordinates, and determined to submit acceptably optimistic reports which reflect faultless completion of a variety of tasks at the expense of the sweat and frustrations of his subordinates."[3]

Why do these things happen? Officers receive commissions that clearly repose "special trust in their loyalty, courage and integrity." They are charged to "carefully and diligently discharge their duty," to keep their subordinates in "good order and discipline."[4] Often the tools are there to do the job, but leaders simply fail to execute this responsibility. Sometimes the political context compels them to ignore what would normally be the warning signs

that something is seriously amiss. Late in his life, General Howard K. Johnson, US Army chief of staff under President Lyndon Johnson, revisited an earlier turning point. He had decided that resignation over the conduct of the Vietnam War would be an

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Many situations demonstrate that leadership lapsed when "not enough generals were killed." If leading by resignation on principle is the moral equivalent of dying in wartime at the head of one's soldiers, then it has been many years indeed since a Canadian general officer has "died" for his troops.

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empty, quickly forgotten act, for others would be brought in who were more amenable to the president. Better to serve on, faithful to the Army and the soldier, he thought, and improve the things he could. He reflected that there are sins of omission and sins of commission.

"'I remember the day I was ready to go over to the Oval Office and give my four stars to the President and tell him, "You have refused to tell the country they cannot fight a war without mobilization; you have required me to send men into battle with little hope of their ultimate victory; and you have forced us in the military to violate almost every one of the principles of war in Vietnam. Therefore, I resign and will hold a press conference after I walk out of your door."' Then, added Johnson . . . 'I made the typical mistake of believing I could do more for the country and the Army if I stayed in than if I got out. I am now going to my grave with that lapse in moral courage on my back.'"[5]

These situations demonstrate that leadership lapsed when "not enough generals were killed."[6] If leading by resignation on principle is the moral equivalent of dying in wartime at the head of one's soldiers, then it has been many years indeed since a Canadian general officer has "died" for his troops.

Systems

William Donaldson has proposed that there are "six stars of effective organizations" which must be balanced for organizations to prosper: leadership, culture, strategic planning, organizational design, developing people and control methods.[7]

Leadership and Culture. Undoubtedly the most important aspect of the mix for an officer is leadership, along with its concomitant notions of responsibility and accountability. Though fundamental to military organizations, this leadership link to civilian culture has faded. Former Secretary of the US

Navy James Webb argued that the greatest lingering effect of the Vietnam era on US society is that by default it brought about a new notion: "that military service during time of war is not a prerequisite for moral authority or even respect."[8] Canada and many other countries had begun to typify this truism long before Vietnam; indeed our prime minister elected in 1968 had studiously avoided service in World War II.

Nevertheless, whatever the political dynamic that directs the military, soldiers (like most intelligent people who toil in value-seeking organizations) expect their superiors to be accountable to them, as well as to their shareholders and any others. Accountability, after all, is a principal mechanism for ensuring conformity to standards of action.

In the military, as in any large public or private organization, those who exercise substantial power and discretionary authority must be answerable for all activities assigned or entrusted to them—in essence, for all activities for which they are responsible. Regardless of whether those actions are properly executed and lead to a successful result or are improperly carried out and produce injurious consequences, the leader is still responsible.

That this element of leadership should have such a profound effect on the organization's culture should not be surprising. The military, like many hierarchical organizations, tends to block negative information from reaching the decision makers at the top. Consider the examples of the cargo door problem on a DC-10, apparent after hundreds of people died in a crash near Paris, and the spectacular Challenger disaster in 1985.[9] Subsequent investigations of both accidents revealed other people in the organizations were aware of problems but were prevented from making their concerns known. These situations are analogous to the Canadian military experience in Somalia.

While these incidents typify how many large organizations respond to disaster, they starkly contrast, for instance, with incidents such as Boeing's reaction to the horrible crash of one of its (Japan Airlines) 747 aircraft. Boeing accepted responsibility for the faulty repair of a pressurized bulkhead, even though the National Traffic Safety Board investigation that revealed the fault also demonstrated that senior Boeing managers could not have known about it. Or take the resignation of Britain's Lord Carrington in the wake of the Argentinean invasion of the Falklands. Ministerial responsibility, in his case, demanded that he resign after the failure of the Foreign Office to predict the attack—despite other decisions by his own prime minister that impaired his ability to do so.

We must understand how such incidents connect the leader's responsibility and the culture of the organization. In many cases, such as the McDonnell Douglas and Morton Thiokol ones mentioned earlier, when a disaster occurs, senior leaders will proclaim their innocence and deny any moral responsibility. They often argue that they were not given information which could have warned them of impending problems and that they tried very hard to get such information. One should question, naturally, whether such protestations are appropriate. After all, most senior executives are well paid for their responsibilities. In particular, they receive bonuses or incentives when the corporation performs well. Since they benefit when the organization does well, how can they deny responsibility when things go wrong?

The problem, of course, is that leaders may not take the time to build the kind of learning organization that Senge talks about, in which shared vision is created by communication, encouraging personal vision and distinguishing positive from negative visions.[10] From Senge to Somalia, the moral of the story is simple: high-performance organizations talk internally. Vision is not about "top down" or "bottom up." It is about "sign on" and "acceptance." As retired General Gordon R. Sullivan opined, "in leading change, leaders must be extremely careful to spend a tremendous amount of time defining the intellectual change which must precede the physical. Without this work being done carefully and well, leaders become fad-surfers, [who] will never catch the big wave."[11]

To return to the DC-10 cargo door example (or, say, a bad decision by an officer on a dark and stormy night in a strange and distant land) senior leaders who claim to be personally innocent confuse their subordinates. Professional responsibility, after all, requires more than just doing one's best and trying to excuse oneself from moral responsibility if things go wrong. Even if leaders were not aware of what their subordinates were doing, and even if they had done everything they could to establish a culture in which they would be informed of subordinates' activities, they would not have automatically met their professional responsibilities. It would still be possible that they lacked the necessary ability to occupy a demanding leadership position. After all, organizations usually possess all the knowledge and ability necessary to avoid disaster. Leaders' claims that they are not responsible are curious precisely because leaders have the authority to demand such negative information, and it is certainly one of their obligations to know about these things.

Watergate Special Prosecutor Archibald Cox (*left*) and Elliot Richardson. In 1973, as attorney general under President Richard Nixon, Richardson resigned rather than carry out his orders to fire Cox, who had been investigating White House involvement in Watergate. A Harvard graduate and platoon leader during World War II, Richardson received a Bronze Star and two Purple Hearts. He was secretary of defense before becoming attorney general.

Wide World Photos

General Johnson, Army chief of staff under Lyndon Johnson, decided that resignation over the conduct of the Vietnam War would be an empty, quickly forgotten act, for others would be brought in who were more amenable to the president. Better to serve on, faithful to the Army and the soldier, he thought, and improve the things he could. . . . "I made the typical mistake of believing I could do more for the country and the Army if I stayed in than if I got out. I am now going to my grave with that lapse in moral courage on my back."

Strategic Planning and Organizational Design. The core competence of the US Army is to live, move and fight on the modern battlefield. The ancillary tasks that stem from this, of course, are legion, but important for most military organizations, a competence is exclusionary. It seeks to ask "what do we do that no one else does?" The corollary, of course, is "If there is some other organization that does it, why do we exist?" In other words, armies that exist to do peacekeeping, firefighting, flood relief or something else to justify their budgets, won't be around for very long—at least as armies. To paraphrase Napoleon, you will have an Army, so it is generally preferable that it be your own.

People want to "pledge allegiance to something," for the "desire to belong is a foundation value, underlying all others."[12] Military leaders must design organizations that can satisfy individual needs to belong and operationalize strategic intent. Employees in companies that are managed for longevity perceive themselves as part of a larger, cohesive

whole—a work community. This is certainly true of most military organizations.

Nevertheless, no Western military has escaped downsizing in recent years. But combined with ambiguous strategic leadership and all-too-frequent

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The military, like many hierarchical organizations, tends to block negative information from reaching the decision makers at the top. . . . Boeing's reaction to the horrible crash of a Japan Airlines 747 aircraft is in stark contrast to the way many organizations respond to disaster. Boeing accepted responsibility for the faulty repair of a pressurized bulkhead, even though the National Traffic Safety Board investigation that revealed the fault also demonstrated that senior Boeing managers could not have known about it.

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non-core activities (from peacekeeping or peace-enforcement activities in Iraq, Somalia, Rwanda, Haiti and the former Yugoslavia, to mixed-gender training of recruits, to the uneven application of responsibility), the trickle of departing specialists has, in the past two or three years, become a flood.

Part of this exodus has to do with the contemporary geostrategic confusion. "How does what I am doing," the young soldier may ask, "add value to the situation in which I find myself?" But increasingly, the uncertainty is directed at senior military leadership, and it takes another form: "I'll do this fourth deployment in three years, but tell me how it is part of a larger strategic context and a vision of a better future."

Judging from exit interviews and the Army's failure last year to achieve its recruiting goals, senior military leaders are apparently not answering

these questions satisfactorily. Moreover, in an age of media convergence, when the actions of a 19-year-old soldier may be carried live on CNN, notions of "freedom of action" and "empowerment" take on restrictive meanings that would have been senseless only 10 years ago. If enthusiasm is at least as important as experience in a military context, these developments are very troubling indeed.

Some of the seeds of the discontent that many soldiers feel were sown by the US services themselves as they sought, over the past 20 years or so, to institutionalize the "Top Gun" mentality in training. Borrowed from the Navy's Fighter Weapons School, the Army's Combat Training Centers and the Air Force's Nellis Air Force Base provide the best training in the world. After 20 years, the mental agility and initiative that made for remarkable success in the Gulf War have also left a mentality of questioning a superior's orders at every level in the organization to better understand and execute the intent.

While these requests for clarification enable tremendous success when unity of command is strong, they also lead to disillusionment and high release rates when the commander's strategic intent is unclear. Young US soldiers really will announce that "the emperor has no clothes."

The real threat that such high release rates pose, however, has much to do with the formulation of strategy and the fact that the services are losing so many midcareer officers. This loss is significant because, in the military context, the organizational culture is not an element of the system, it *is* the system. Henry Mintzberg says of organizations, "at the *individual* level, leaders mentor, coach and motivate; at the *group* level, they build teams and resolve conflicts; at the *organizational* level, leaders build culture."[13] But the military, unlike many organizations, has a built-in culture that needs little stewardship. General Sullivan once quipped, "the Army was an institution built by geniuses to be run by idiots." It needs good, stable stewardship of its day-to-day life, not revolutionary cultural change, if it is to survive with its core competence intact.

Military cultural strength depends on redundancy. A military hierarchy is designed to absorb casualties in war, and it lends enormous brain power in situations short of war. The large cohort of midcareer officers in staff positions forms the real heart of the organization.

For creating strategy, this group of experienced, educated, connected and intellectually challenging officers who represent the "emergent strategy" in the adjacent diagram. The top-down "intended and deliberate" strategies, which are the products of national-level direction, are significantly affected by

this group of "reality checkers," through a process that is reminiscent of another Arie de Geus notion, that "nobody knows as much as all of us." It is the loss of this "cultural middle" that represents the most serious contemporary challenge to militaries in general, and to the US Armed Forces in particular.

Developing People and Control Methods. Western military circles debate whether there has been a "revolution in military affairs." It is beyond question that there has been a revolution in business affairs, but most military leaders have not converted the "box" lesson of Jack Welch, or the "high expectations" of George Fisher into realizable goals.

Recognizing this lag, the US Congress has mandated that regardless of operational and other commitments, a large amount of money and effort be devoted to *experimentation*. This effort to discover leap-ahead technologies or methods aims to revolutionize future warfare, much as the stirrup and machinegun did in their day.

In an ironic twist, it has been more than 20 years since the US military was displaced by business as the leader in defining, developing and fielding emerging technologies. In this information age, it is likely that the lead enjoyed by industry will continue. The new Army takes many of its large-scale logistics ideas from Wal-Mart and Fedex; previously industry took them from the Army.

Despite this technological preoccupation, however, people will provide the continuity essential for success. This human continuity bears the closest examination in the search for the next "stirrup," because the critical generation of officers is abandoning the military in large numbers. The spirit of constructive internal criticism has been the real contemporary competitive advantage of the US military, not all the gadgetry, however impressive. If this mentality can be maintained, the advantage will endure, but many contemporary pressures conspire to upset the balance.

> *A competence is exclusionary. It seeks to ask "what do we do that no one else does?" The corollary, of course, is "If there is some other organization that does it, why do we exist?" In other words, armies that exist to do peacekeeping, firefighting, flood relief or something else to justify their budgets, won't be around for very long—at least as armies.*

Shared culture in a military context comes easily because a highly structured socialization process and an unwritten code of ethics form the basis of behavior. As Sullivan points out, an enduring set of values allows a soldier to do the right thing and not fixate on the merely legal thing. Values shape the institution, not just the individual. Organizations with strong values are successful over time: "Leadership must focus on values because shared values express the essence of an organization . . . the things which will not change. With values as the unifying, guiding rubric, effective leadership is not about controlling from the top, but rather about unleashing the power of people. Team building must start as a process of *distributing* leadership."[14]

Maintaining an inclusive, team-based environment for soldiers is a great military challenge. Nevertheless, hope for most Western military organizations rests on this cohesive dynamic—despite tragic events such as that in Somalia.

Much management theory, especially as it relates to organizational design, was originally based on military examples. It would do us all well in any military to remember, as businesses continue to discover in their efforts to understand many contemporary emerging notions of human capital, personal strengths, interpersonal skills and so on, what one US Army general observed: "people are not *in* the Army, they *are* the Army."[15] **MR**

NOTES

1. Gilles Letourneau, Executive Summary to the *Report of the Public Inquiry into the Deployment of Canadian Forces to Somalia*, 1996.
2. Peter Senge, "The Leader's New Work: Building Learning Organizations." *Sloan Management Review* (Fall 1990), 9.
3. Preamble to the Executive Summary of the *Study on Military Professionalism*, United States Army War College, Carlisle Barracks, PA, 1970.
4. *Queen's Commissioning Scroll.* Similar wording is used for the commissions of most Western nations.
5. Lewis Sorley, *To Change a War: General Harold K. Johnson and the PROVN Study* (Lawrence, KS: University of Kansas Press 1998), 31.
6. Peter Drucker, "Not Enough Generals Were Killed," *Forbes ASAP* (8 April 1996), 104.
7. William Donaldson, *The Six Stars.* Course material used at the Graduate School of Management, The College of William and Mary. One of Donaldson's models describes six stars that must be in alignment for an organization to prosper. They are leadership, culture, organizational design, strategic planning, control methods and developing people. "Stars," of course, are a compelling metaphor in a military environment.
8. James Webb, *Military Leadership in a Changing Society*, Naval War College Conference on Ethics, Newport, RI, 1998, 31.
9. John Bishop, "The Moral Responsibility of Corporate Executives for Disasters," *Journal of Business Ethics,* 1991, 377-83.
10. Senge, 14.
11. Gordon R. Sullivan, *Hope is Not a Method: What Business Leaders Can Learn From America's Army* (New York: Random House, 1996), 43.
12. Tom Stewart, "Company Values That Add Value," *Fortune* (8 July 1996), 147.
13. Henry Mintzberg, "Covert Leadership: Notes on Managing Professionals," *Harvard Business Review* (Nov-Dec 1998), 145.
14. Sullivan, 119.
15. Sorley, *Thunderbolt: General Creighton Abrams and the Army of His Time* (New York: Simon and Schuster, 1992), 146.

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Communicating Intent and Imparting Presence

Lieutenant Colonel Lawrence G. Shattuck, US Army

"Intent = Purpose + Method + Endstate."
"Intent should have five elements."
"It should have two elements."
"It's *Aftragstaktik* made simple for the masses."
"It should be a structured process."
"It should be informal."

THESE STATEMENTS about commander's intent, some of them obviously contradictory, were collected a few years ago from Combined Arms and Services Staff School (CAS³) students and Army War College (AWC) students—all combat arms officers. Their understanding of commander's intent clearly demonstrates that although the concept of intent has been in our doctrine for quite a while, confusion still exists. Yet, there has been little empirical investigation into the process of communicating intent. After a brief review of what Army doctrine and other literature have to say about intent, this article will present the sobering findings of one study that investigated the communication of intent in four active-duty combat arms battalions. Next, the article will propose a method to help commanders improve their ability to communicate intent to their subordinates. Finally, the article will argue that the process of communicating intent is subordinate to another process known as *imparting presence*.

Commander's Intent in Doctrine and Practice

Although US Army commanders have long used intent to guide the actions of subordinates, it has only recently been formally included in doctrine. Commander's intent first appeared in US Army Field Manual (FM) 100-5, *Operations*, in 1982.[1] During the 1970s, the military tended to centralize decision making. Events such as the failed hostage rescue mission in Iran signaled the need to empower subordinate commanders on the scene. Army doc-

> *If the enemy commander has 10 possible courses of action, but the friendly commander, restricted by the senior commander, has only one course of action available, the enemy clearly has the advantage. But, if the friendly force's senior commander, through a minimally constraining intent statement, empowers his subordinates, they can adapt to any situation they confront.*

trine writers used the German army's *Aftragstaktik*, first introduced in the early 19th century, as a model for today's concept of commander's intent.

Aftragstaktik, best translated as mission-oriented command, was developed in response to the French revolution and "Napoleon's method of waging war, which swept away the traditional armies and their linear tactics, iron discipline, blind obedience and intolerance of independent action."[2] According to J.L. Silva, *Aftragstaktik* was not a set of procedures but a philosophy, a social norm within the German army. At its foundation was the realization that "battle is marked by confusion and ambiguity." The German army leaders "consciously traded assurance of control for assurance of self-induced action." These leaders developed a military cultural norm that supported and expected decisive action by subordinates in the face of uncertainty or ambiguity. Fundamental to the success of *Aftragstaktik* in the German doctrine was trust. Silva writes:

"Trust between superior and subordinate is the cornerstone of mission-oriented command. The superior trusts his subordinate to exercise his judgment and creativity, to act as the situation dictates to reach the maximum goal articulated in his mission; the subordinate trusts that whatever action he takes in good faith to contribute to the good of the whole will be supported by his superior."[3]

Silva indicates that such confidence in subordinates stems from the superior's intimate personal knowledge of each one. German senior commanders knew that such knowledge was essential to implementing *Aftragstaktik*.

In formalizing *Aftragstaktik* into US Army doctrine, the fullness of the concept was diluted. The 1993 version of FM 100-5 defines commander's intent, but there is no discussion of social norms, expectations, trust or intimate personal knowledge of subordinates. Instead, FM 100-5 focuses on structure and content rather than process.

"The commander's intent describes the desired endstate. It is a concise statement of the purpose of the operation and must be understood two levels below the level of the issuing commander. It must clearly state the purpose of the mission. It is the single unifying focus for all subordinate elements. It is not a summary of the concept of the operation. Its purpose is to focus subordinates on what has to be accomplished in order to achieve success, even when the plan and concept no longer apply, and to discipline their efforts toward that end.

The intent statement is usually written but can be verbal when time is short. It should be concise and clear; long narrative descriptions of how the commander sees the fight tend to inhibit the initiative of the subordinates."[4]

Intent in practice. Gary Klein's study of intent statements and preliminary investigations indicated that intent statements often do not comply with doctrine's content and structural guidance. Klein collected 97 intent statements for analysis and found that their lengths ranged from 21 to 484 words, with most of them averaging between 76 and 200 words.[5] Here is an intent statement written by a brigade commander deployed to the National Training Center (NTC), Fort Irwin, California.

"The purpose of X Brigade's operation is to protect the Corps, rear and build-up of follow-on friendly forces. *In support of Division and Corps, we must attack rapidly to the west in the Central Corridor, destroy the lead motorized rifle battalion (MRB) of the XXX Motorized Rifle Regiment (MRR) between Phase Line (PL) IMPERIAL and PL EXCALIBUR, and then seize defensible terrain along PL EXCALIBUR. To do this, X-X Infantry (Light) will infiltrate to secure Hill 780 (NK4411), deny the enemy its use, and block to the west to prevent the enemy's use of the mobility corridor between Hill 780 and the south wall of the Central Corridor (Avenue of Approach 3). Task Force X-XX, the brigade main effort, will move to contact in zone, fix the advance*

guard main body (AGMB) and destroy it with an enveloping attack in depth. Brigade deep artillery fires, close air support and scatterable mines will be designed to attrit its commitment into the Brigade zone, and force the AGMB into the southern avenue of approach, where TF X-XX can destroy it by direct fires. After destruction of the MRB in zone, TF X-XX will continue the attack to seize defensible terrain along PL EXCALIBUR. End state visualized is lead MRB of XXX MRR destroyed; brigade with heavy forces in control of Brown and Debman passes; and brigade postured to conduct defensive operations to destroy follow-on enemy regiments."[6]

This brigade commander took pride in his clear, doctrinal intent statements. Unfortunately, in this

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case, he missed the mark. The italicized portion that dominates this long intent statement is *method*. It tells each subordinate unit what to do, and the detail limits the flexibility of subordinate commanders for if they fail to accomplish the tasks listed, they fail to achieve their commander's intent.

In an operation order briefing held later during this same brigade's NTC rotation, a battalion commander asked for clarification of his unit's mission. The brigade commander, somewhat frustrated, said, "OK, you want your brigade commander's priority? Take care of this. If you don't get this right then TF *X-XX* will not be able to get through." The brigade commander's response was, arguably, a much clearer intent statement than the written form that he had spent so much time crafting.

Flexibility versus synchronization. The difference between the brigade commander's written and verbal intent statements highlights the tension between the constructs of centralization and flexibility. The senior commander must make an inherent tradeoff which impacts the subordinate commander's ability to adapt to battlefield conditions. The battlefield is a highly complex, uncertain environment where a commander matches wits with his opponent while coping with such variables as terrain, weather, morale, fatigue and equipment. Providing subordinate commanders a large degree

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of flexibility is critical to success. Consider the following illustration. If both the enemy and friendly commanders have only one course of action available to them, parity exists. If, however, the enemy commander has 10 possible courses of action, but the friendly commander, restricted by the senior commander, still has only one course of action available, the enemy clearly has the advantage. But, if the friendly force's senior commander, through a minimally constraining intent statement, empowers his subordinates, they can adapt to any battlefield situation they confront.

Senior commanders must not lose the ability to synchronize events as they provide flexibility to subordinate commanders. A commander who does not synchronize subordinate efforts invites disaster. During Israel's 1956 Sinai Campaign General Moshe Dayan stated:

"To the commander of an Israeli unit, I can point on a map to the Suez Canal and say: 'There's your target and this is your axis of advance. Don't signal me during the fighting for more men, arms, or vehicles. All that we could allocate you've already got, and there isn't anymore. Keep signaling your advances. You must reach the Suez in 48 hours.'"[7]

These orders all but eliminated Dayan's ability to influence the battle. On one occasion, an entire brigade watched while two other brigades were fighting to capture an objective. In retrospect, Dayan realized his mistake. He wrote that the heavy emphasis on improvisation and flexibility and the absence of a strong controlling hand meant that "our capacity for misadventure [was] limitless." And, granted "a huge measure of independence," the brigade commanders failed to coordinate their movements.[8] When senior commanders provide their subordinates with flexibility at the expense of synchronization, battlefield activities are coordinated only by coincidence.

An Empirical Study of Commander's Intent

Command and control processes are not unique to the Army, or even to the military. Many other organizations have practices to develop plans and procedures and then implement them at some other time and place as the senior member of the organization desires—despite complexity or uncertainty. But no other organization works as hard at explicitly formulating and communicating intent to its subordinates as the US Army. The concept of intent is written into our doctrine and taught in our schools. Yet, as a profession, we have some work to do before we effectively formulate, communicate, interpret and implement intent.

In an empirical study, four active duty battalions (two armor, one mechanized infantry and one ground cavalry squadron) participated in the research. Figure 1 describes the simulation that was used to collect data. The battalion commanders and their operations officers knew the research was investigating the intent process within their organizations, but the company commanders were only told that the process was a garrison-based exercise to provide the battalion with practice in developing operation orders.

The battalion commanders were issued a brigade operation order (OPORD) with maps and overlays that tasked the battalion to defend in sector and to be prepared to counterattack. The OPORD was based on an actual NTC scenario. The battalion commanders and their staffs had one week to develop a battalion OPORD with all appendixes and overlays. They then disseminated the orders, which included statements of intent, to subordinate company commanders. These company commanders (four per battalion) were given a
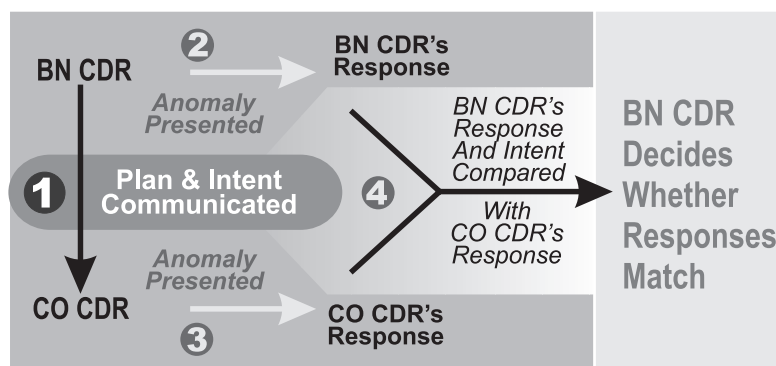
Figure 1. Data Collection from battalion and company commanders.

week to develop their own OPORDs and then briefed them back to the battalion commanders.

An investigator reviewed copies of the battalion and company OPORDs. Then, two situation reports (SITREPs) were created for each battalion. In the first SITREP, the companies were blocked from completing their specific mission but could still achieve the higher-order objectives of the battalion commander. In the second SITREP, the companies had completed their missions with relative ease and had to decide what to do next. In both cases, the intent statement of the battalion commanders provided sufficient information to help the company commanders respond to the SITREPs.

The battalion commanders were presented with the SITREPs and asked how they expected the subordinate company commanders to respond to each SITREP. Their answers became the basis for evaluating the responses of their subordinate company commanders. The SITREPs were then presented to the company commanders. The responses of the company commanders were recorded. The battalion commanders were shown the responses of their subordinates and asked to judge those responses relative to their own.

Four battalions, each with four company commanders that were given two SITREPs, generated 32 episodes. The battalion commanders judged that the company commander's responses matched their intent in only 17 of the 32 episodes (53 percent). In three episodes, however, the responses matched only by coincidence—the company commanders made their decision based not on their understanding of the battalion commander's intent but because they misinterpreted the information available to them. In three other episodes, although the battalion commanders judged the decision of the company commanders to match their own, they were, in fact, substantially different. Battalion commanders considered them a match because the company commanders were "thinking along the right lines." If these six episodes are considered mismatches, then the responses matched in only 11 of 32 episodes, or 34 percent.

The amount of time the company commanders had worked for their battalion commanders varied from as little as one week to as long as 21 months. Figure 2 summarizes the responses of the company commanders to the SITREPs based on the length of time they had worked

Pilots at a mission brief for one of 1st Cavalry Division's cross-border raids into Iraq, February 1991.

Successful company commanders that matched their battalion commander's intent initially determined the disposition of friendly and enemy forces. They specifically referenced procedures and the intent statement in the battalion OPORD. They also acknowledged that they had to coordinate their activities with commanders of adjacent units prior to taking any action.

for their battalion commanders. The data do not suggest that the ability of the company commanders to match their battalion commander's intent was linked to the length of time the company commanders had been in command. However, the research did reveal several interesting patterns in the performance of subordinate commanders.

Time In Cmd	Number of Co Cdrs	Possible Correct Responses	Responses Judged Correct	Actual Number of Correct Responses
1 Week	1	2	0	0
3 Months	2	4	3	2
8 Months	3	6	3	3
9 Months	4	8	2	0
13 Months	2	4	4	2
20 Months	2	4	2	1
21 Months	2	4	2	1
Total	**16**	**32**	**17**	**11**

Figure 2. Summary of company commander responses based on their time in command.

Discussion of empirical findings. Successful company commanders that matched their battalion commander's intent initially determined the disposition of friendly and enemy forces. They specifically referenced procedures and the intent statement in the battalion OPORD. They also acknowledged

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> *There are four equally important components: formulation, communication, interpretation and implementation. The first two components—formulation and communication—are the senior commander's responsibility.... Our officer education system emphasizes formulation and students have virtually no opportunity to practice the other three components.*

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that they had to coordinate their activities with commanders of adjacent units prior to taking any action.

Unsuccessful company commanders generally did not refer to the battalion commander's statement of intent. In addition, unsuccessful commanders exhibited several other behaviors. Some commanders exhibited flawed tactical knowledge. For example, one commander's response to a SITREP was to reposition his unit on the battlefield. In the scenario, however, there was insufficient time to accomplish this maneuver. The enemy would have attacked the company on its flank as it moved. A few commanders had a low tolerance for situational uncertainty. They decided not to act without more information to reduce their uncertainty. In some instances, commanders misassessed available information. Even though they were given information on the status of enemy units, for example, they did not incorporate it into their mental model of the battlefield. Some commanders also exhibited a rigid adherence to procedures despite new information that indicated they were facing a novel, unanticipated situation. When a major, unanticipated event occurred on an adjacent part of the battlefield, these commanders would not deviate from their assigned mission, even though the event jeopardized the higher-order goals of the system. Finally, the study indicated that, in some instances, battalion and company commanders disagreed concerning doctrinal terms. If a battalion commander and a company commander do not have the same definition of "delay," the subordinate commander may make an erroneous decision.

The feedback from all four battalion commanders participating in the study indicated that it was worthwhile and they leaned a great deal. The re-

sults gave them a clear picture of how successfully they communicated intent to their subordinate commanders. In addition, the results identified areas that each unit needed to improve in formulating, communicating, interpreting and implementing intent.

Responsibilities of senior and subordinate commanders. There are four equally important components: formulation, communication, interpretation and implementation. The first two components—formulation and communication—are the senior commander's responsibility. Subordinate commanders interpret and implement intent. Subordinate commanders at a given echelon will also be senior commanders and must formulate and communicate their intent to the next lower echelon. Our officer education system emphasizes formulation. Students at combat arms advanced courses, CAS[3], Command and General Staff College (CGSC) and even Army War College students, practice writing intent statements based on information provided by their instructors (including higher commander's intent, mission statement, information concerning friendly and enemy forces and task organization). The final product in these schools is usually an OPORD that is briefed to an instructor. However, students have virtually no opportunity to practice the other three components.

Training officers in the classroom to communicate, interpret and implement intent is extremely difficult because these components are context-based—personality- and situation-dependent. Interpreting and implementing intent is especially problematic. Senior commanders formulate intent prior to hostilities, based on their vision of the battlefield. They also communicate their intent to subordinate commanders, who interpret it prior to hostilities. If the battle goes according to the vision, there is no need for subordinate commanders to refer to the intent statement. It is only when the battle deviates from the plan that the intent statement becomes significant. However, the context in which the intent was developed (the senior commanders' vision) has now changed. Subordinate commanders now must interpret and implement the intent based on a new, probably unanticipated context. As stated earlier, our military schools do not teach subordinate commanders to interpret and implement intent. The results of the research reported earlier indicate that subordinate commanders may not be learning these skills in the field either.

A Method for Conducting Unit Intent Training

The context-based simulation used in the empirical research described above provides a low-cost, high-return method for conducting unit intent train-

ing at the battalion or brigade level. The training can be conducted as an event by itself or in conjunction with any training exercise or actual deployment. The equipment required is minimal: a video camera, a video cassette recorder and a television. The executive officer (XO) can serve as the administrator. The only input required to initiate the training is an OPORD (with annexes and overlays) from higher headquarters. The training should be conducted in the following manner:

● Based on the OPORD issued by the higher headquarters, the commander and his staff develop an OPORD and brief it to the subordinate commanders.

● The subordinate commanders and their staffs develop OPORDs and brief them back to the commander.

● The XO develops 3 to 5 SITREPs based on the unit and subordinate OPORDs. It is critical that the SITREPs portray scenarios in which the ability to complete the mission has been blocked (or unexpected success has been achieved) but the commander's intent is still valid and able to guide the decision making of the subordinate commanders.

● The XO presents the SITREPs to the senior commander, one at a time. Using his OPORD, maps and overlays, the commander reasons aloud about what action he would expect from each of his subordinate commanders based on each SITREP. This session is videotaped.

● The XO presents the SITREPs to each subordinate commander. Using their OPORD, maps and overlays, they reason aloud about what actions they would take and why. This session is also videotaped.

● The XO serves as a moderator as the commander and each subordinate commander come together to review the videotape of their responses to the SITREPs.

The XO helps identify differences in the reasoning of the commander and his subordinate commanders. He must go deeper than determining whether the actions recommended by the commander and a subordinate match. The XO must identify discrepancies in understanding and implementation of doctrine, tactics, techniques and procedures; predispositions with respect to uncertainty; excessive reliance on written orders; and evidence of imbalance with respect to flexibility and synchronization.

Given a healthy command climate, this training method will dramatically improve the ability of a commander and his subordinates to formulate, communicate, interpret and implement intent. But our concept of intent is only part of what the Germans had in mind when they developed *Auftragstaktik*. As stated earlier, US doctrine on intent does not in-

It is not enough to tell subordinates what to do and why. When situations permit, commanders should explain how they arrived at the decision. Explaining the rationale helps subordinates understand and develop similar patterns of thought. Frequent interaction—formal and informal, professional and social—will provide subordinates additional opportunities to learn how their commanders think.

clude concepts of social norms, expectations, trust or intimate personal knowledge of subordinates. To incorporate these elements a commander must impart his presence to his subordinate commanders.

Imparting Presence to Subordinate Commanders

Recent technological advances have made presence a popular concept. The term normally suggests using technology to display and interact with a remote (or constructed) environment. The concept of imparting presence, however, has a different connotation. Multiple environments cannot be brought to commanders—they cannot be everywhere all the time. Instead, what they can do is to impart to their subordinates a sense of themselves. Imparting presence is the process of developing subordinates' decision-

> *Commanders should begin to impart their presence from the day they assume command. They need to establish a healthy command climate and explicitly state what they value and why—both in garrison and in tactical situations. Reward structures must reflect this value system.*

making framework so that they respond the same way the senior commanders would if they were able to view the situation through their eyes. Several factors contribute to the ability of commanders to impart their presence to subordinate commanders.

Start early. Commanders should begin to impart their presence from the day they assume command. They need to establish a healthy command climate and explicitly state what they value and why—both in garrison and in tactical situations. Reward structures must reflect this value system.

Establish acceptable operating limits. In most cases, commanders should tell subordinates what to do, not how to do it. At the same time, however, subordinates usually are not free to accomplish the task in any manner they choose. Certain constraints and restrictions limit the possible ways subordinates can accomplish a task. By establishing the operational boundaries, commanders provide subordinates the freedom to act and the knowledge of what is acceptable and what is not.

Explain your rationale. It is not enough to tell subordinates what to do and why. When situations permit, commanders should explain how they arrived at the decision. Explaining the rationale helps subordinates understand and develop similar patterns of thought. Frequent interaction—formal and informal, professional and social—will provide subordinates additional opportunities to learn how their commanders think.

Get feedback often. Commanders must ensure that subordinates clearly understand their orders. The potential for misunderstanding is great when the commanders and subordinates do not agree—and are not aware that they do not agree—on the meaning of doctrinal terms. When appropriate, commanders should use doctrinal terms and ensure that subordinates agree on their meanings.

Recognize individual differences. Silva wrote, "A superior's confidence in his subordinates will be high or low as a result of his intimate personal knowledge of each gained through his personal responsibility to train and develop them. The superior knows whom he can trust with more latitude and who needs more detailed instructions."[9] Commanders must recognize individual differences among their subordinates and interact with them accordingly.

How do commanders and their subordinates formulate, communicate, interpret and implement intent effectively on the battlefield? They start by imparting their presence to subordinates. They establish healthy command climates and make themselves and their decision-making framework accessible to subordinates. By all accounts, 21st-century battlefields may be volatile, uncertain, complex, ambiguous and lethal. Although technology will provide unprecedented ability to communicate and visualize the battlefield, the pace of events will, as in the past, drive subordinates to make decisions without checking with their commanders. Even though the concept of intent has been in our doctrine for many years, empirical evidence suggests that we do not successfully use it to guide tactical decisions. The unit intent training described here will help commanders and subordinates coordinate their responses to tactical situations. But like all effective training, it must be embedded in a larger, systematic program to impart commanders' presence to their subordinates. *MR*

NOTES

1. US Army Field Manual (FM) 100-5, *Operations* (Washington, DC: Government Printing Office, [GPO] 1982).
2. J.L. Silva, "Auftragstaktik," *Infantry*, September–October 1989, 6-9.
3. Ibid.
4. FM 100-5, (Washington, DC: GPO, 1993), 6-6.
5. "Characteristics of Commanders' Intent Statements," *Proceedings of Command and Control Conference*, National Defense University, Fort McNair, Washington, DC, 28-29 June 1993 (McLean, VA: Information Systems Division, Science Applications International Corporation).
6. LTC Lawrence G. Shattuck, "Communication of Intent in Distributed Supervisory Control Systems," (Unpublished Dissertation, The Ohio State University, 1995), 41.
7. Martin Van Creveld, *Command in War* (Cambridge, MA: Harvard University Press, 1985), 196
8. Ibid., 197.
9. Silva, 6-9.

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Getting it Right Quickly

Major Fred W. Johnson, US Army

I am tempted to say that whatever doctrine the armed forces are working on now, they have got it wrong. I am also tempted to declare that it does not matter. . . . What does matter is their ability to get it right quickly, when the moment arrives. . . . When everybody starts wrong, the advantage goes to the side which can most quickly adjust itself to the new and unfamiliar environment and learn from its mistakes.[1] — Sir Michael Howard

THIS ARTICLE ADDRESSES the question, "How can leaders make their units into organizations that learn from their mistakes and 'get it right quickly?'" The question is important for several reasons. Most important, the lives of soldiers and success in combat depend on how well units learn from their mistakes. As a 1945 War Department pamphlet explains, "The old saying 'live and learn' must be reversed in war, for there we 'learn and live'; otherwise we die. It is with this learning in order to live that the Army is so vitally concerned."[2] Additionally, leadership doctrine and Officer Personnel Management System XXI direct that Army leaders build units which learn and adapt quickly. For example, the new officer evaluation report (OER) requires that officers be rated on how well they "foster a learning environment in their units."[3]

However, leaders face many challenges in building units that truly learn. First, defining such an organization and then measuring the effectiveness of how well it learns is difficult. Second, only limited literature and doctrine provide the performance measures for unit learning. Third, tactical units are not structured to maximize unit learning and use it to their best advantage. Finally, as former Army Chief of Staff General Gordon R. Sullivan suggests, "the most difficult challenge is developing a culture that values this kind of learning."[4]

The most obvious method to measure a unit's ability to learn is when the unit stops making the same mistakes. To measure this requires that mistakes be identified, which normally occurs during AARs. After identifying a mistake and rectifying the error, leaders must establish a system to catch repeated mistakes.

Defining and Measuring Learning in Tactical Units

Defining the characteristics of an organization that effectively learns and quickly adapts to changes is an elusive challenge. Peter Senge's *The Fifth Discipline* popularized the term "learning organization" among both civilian and military leaders. Senge defines the learning organization as one that is "continually expanding its capacity to create its future . . . it is not enough to merely survive. 'Survival learning' or what is more often termed 'adaptive learning' is important. . . . But for a learning organization, adaptive learning must be joined with 'generative learning,' learning that enhances our ability to create."[5] Sullivan adds, "As we, the leaders deal with tomorrow, our task is not to make perfect plans. . . . Our task is to create organizations that are sufficiently flexible and versatile that they can take our imperfect plans and make them work in execution. That is the essential character of the learning organization."[6]

These two definitions do not offer much to a new second lieutenant—or to a battalion commander, for that matter. The real question remains unanswered: "How do I know when I have a learning organization?" The above definitions suggest two ways a leader can measure how well his or her unit learns.

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The Army has identified CALL as its institutional "focal point" without delineating organizational responsibilities. . . . Units must have systems to archive the results of AARs and then disseminate those results throughout the entire organization and eventually to CALL. Without such sharing, the entire Army lessons-learned program is in jeopardy . . . [because] tactical units are not structured within their staffs to use the information from AARs to their best advantage.

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mistake and rectifying the error, leaders must establish a system to catch repeated mistakes. The system must also be able to determine whether other units within the organization share this problem. If there is a trend within the entire organization, training plans must be developed to reverse the trend.

Soldier participation in AARs is another way to determine how well the unit learns. There are at least four reasons why soldiers do not participate in AARs:

● The unit may have performed the task perfectly, and the AAR participants have nothing to add.

● Perhaps the soldiers are afraid to say anything for fear of reprisal from their chain of command.

● The facilitator may perform a critique rather than an AAR and not allow the soldiers to participate.

● The soldiers may not know doctrine well enough to make an informed decision on the unit's performance.

The last three reasons for lack of participation during AARs are symptoms of an organization that fails to learn effectively.

The above comments represent just a few ways to gauge the degree to which a unit learns. Other examples range from the intangible standard of the unit's level of initiative (reflected partly when executing imperfect plans) to the quality of written AARs. However, it is important to remember that, "You probably never become a learning organization in any absolute sense; it can only be something that you aspire to, always 'becoming,' never truly 'being.'"[7] Defining a learning organization is a start to becoming. However, clear and succinct doctrine can guide the way.

Limitations of Doctrine

The Army has been an evolving learning organization since Baron von Steuben trained the soldiers of the Continental Army at Valley Forge. Von Steuben adjusted the Prussian military system to unique American characteristics and wrote the *Blue Book*, which was the US Army's first warfighting doctrine. However, it was not until World War I that the Army began to develop a *learning* doctrine, "the Army's first such organizational effort at contemporaneous lesson learning, and each succeeding war steadily improved the machinery and raised the level of general awareness."[8]

Organizations with staffs focused solely on gathering, analyzing and disseminating lessons were established during each war; however, those organizations disbanded after the wars ended. This was the case until 1985, when the Army established the Center for Army Lessons Learned (CALL). In 1989 Army Regulation (AR) 11-33, *Army Lessons Learned Program: Development and Application,* established CALL as the focal point for the Army's lessons-learned system.[9] The next year FM 25-101, *Battle Focused Training,* was published, providing the procedures and standards for conducting AARs. The new FM 22-100, *Army Leadership*, establishes "learning" as a senior leader action. These three publications guide leaders in creating learning organizations. They are good documents, but they inadequately address the problem.

AR 11-33 focuses on the Armywide lessons learned program without providing guidance on how units should learn lessons. It does, however, mandate that units provide lessons to the Army system through CALL. The regulation requires that major Army commands (MACOMs) provide CALL with "after-action reports or other appropriate observations . . . significant objective and subjective observations and insights within 120 days of each combat training center (CTC) rotation . . . and semiannual synopsis of significant trends."[10] Interviews with personnel at CALL reveal that this is simply not happening. Rarely, if ever, does CALL receive such reports from the MACOMs.

There are several possible reasons for this breakdown. AR 11-33 is a rather obscure regulation, and it is possible that its directives are not being enforced because no one knows that they exist. However, the disconnect is much more subtle—lesson learning within the Army occurs at two levels: the "local circuit" and the "Armywide circuit."[11] The problem is the lash up between these two circuits.

Von Steuben training a cadre of Continental soldiers to become the Army's first drill sergeants.

The Army has been an evolving learning organization since Baron von Steuben trained the soldiers of the Continental Army at Valley Forge. Von Steuben adjusted the Prussian military system to unique American characteristics and wrote the **Blue Book,** *which was the US Army's first warfighting doctrine. However, it was not until World War I that the Army began to develop a* **learning** *doctrine.*

The Armywide circuit falls under the responsibility of CALL. For the most part, CALL has successfully collected and disseminated lessons through both active and passive means. CALL actively collects lessons by deploying Combined Arms Assessment Teams (CAATs) to observe and document lessons from training exercises and real-world contingency operations. CALL passively collects lessons through the submission of articles and observations from individual officers, soldiers and civilians in the field. CALL also collects information, both actively and passively, from the CTC. In all cases the material is then published in newsletters, bulletins or placed in the CALL database—all are accessible through CALL's website.

The failing circuit is at the local level—with the squads through the divisions. CALL does receive articles and observations from selected individuals; however, there is no concerted effort at the division level and below to collate usable lessons in the form of AARs and then submit them to CALL. There are at least three possible reasons for this. The first is that units are not conducting AARs, which is doubtful since our doctrine clearly requires AARs after all training events. The second possibility is that AARs are not being conducted to standard; therefore, learning is not happening to its fullest potential. Finally, systems may not be in place to collect AAR results and submit them to CALL.

The very heart of the Army's ability to grow, particularly at the tactical level, is deeply rooted in the AAR process. Through AARs units internalize lessons that soldiers discover. The AAR process marked the turning point for the US Army in institutionalizing organizational learning by ingraining "respect for organizational learning [and] fostering an expectation that decisions and consequent action will be reviewed in a way that will benefit both the participants and the organization, no matter how painful it may be at the time. The only real failure is the failure to learn."[12]

The AAR, though a powerful vehicle for unit learning, must be performed to standard to realize its true benefit. FM 25-100, *Training the Force,* summarizes those standards as "a structured review process that allows training participants to discover for themselves what happened, why it happened and how it can be done better. The AAR is a professional discussion that requires the active participation of those being trained. An AAR is not a critique."[13] For the AAR to be anything less than a professional discussion with the active participation of all those being trained undermines a unit's learning environment.

Most units probably conduct AARs regularly but not necessarily to standard. One study found that "the majority of AARs are not problem-solving sessions, nor are AAR leaders following doctrinal AAR guidance with respect to discussion participation."[14] If this is the case, the Army's system for learning is in trouble. However, if units are performing AARs to standard, the disposition of the lessons still remains.

The key is creating a "learning culture" within the unit. The leader must articulate a learning ideology and establish the standards for learning in the organization. Those standards must be routinely reinforced, and new members of the unit—particularly leaders—must receive training on key components of the program, such as how to conduct AARs. The results from AARs must be documented, disseminated, archived and re-addressed when systemic problems are identified.

AAR results often remain localized. FM 25-101 provides the standards for conducting AARs but does not require recording the results. Therefore, only the unit that learns a lesson from the AAR process benefits unless the knowledge spreads by word of mouth—a major failing in the Army's learning doctrine. Units must have systems to archive the results of AARs and then disseminate those results throughout the entire organization and eventually to CALL. Without such sharing, the entire Army lessons-learned program is in jeopardy. However, the reason for this failure may be that tactical units are not structured within their staffs to use the information from AARs to their best advantage.

Restructuring Tactical Units to Facilitate Learning

For maximum learning, efforts to collate, analyze and disseminate information must be centralized. For tactical units, a central agency must be responsible for collecting, analyzing and disseminating lessons. It makes the most sense that the G3/S3 be the focal point for collating lessons in tactical units. These staffs are responsible for facilitating training; during peacetime, most lessons occur during training events; the routine training reports should include AAR comments. However, this is not normally the case. FM 101-5, *Staff Organization and Operations*, does not designate a staff with responsibility to collect, analyze and disseminate lessons. The Army has identified CALL as its institutional "focal point" without delineating organizational responsibilities.

This lack of staff structure produces decentralized, local and ad hoc learning. The entire organization does not benefit from the lessons gained. Until doctrine mandates responsibility for centralized collection and dissemination of lessons in tactical units, uniformly sharing those lessons across the Army is unlikely. This is not to say that leaders cannot implement such a structure within their units. However, that would require creating a unit culture that promotes learning to its fullest potential.

The Learning Culture

One does not normally associate the idea of culture to small groups, such as platoons, companies and battalions, but rather whole societies. Still, culture can powerfully influence units to value learning. The leader is central to developing organizational culture and uses several mechanisms, each important to sustaining learning.

A unique and clearly articulated ideology. Leaders need not go beyond FM 22-100 to establish the learning ideology of their units. The key point of the manual is that the leader "makes or breaks" a learning organization. The leader sets the tone for the unit by establishing how well he or she listens and takes advice, sometimes sounding like criticism, which for some leaders is difficult to take. If the leader is not willing to learn, it is unlikely that the unit will learn to its fullest potential. The command climate must welcome ideas from every soldier on how to improve the unit.

Repetitive socializing and training in key cultural values. Leaders and soldiers must be trained in the proper procedures for conducting and participating in AARs. Since participation is the cornerstone to good AARs, soldiers and leaders must be aware of what they have learned and encourage one enough to articulate the lessons in an open forum. Thus, knowing Army doctrine and established tactics, techniques and procedures is key to becoming a learning organization. Soldiers and leaders must know what they do not know when the time comes to evaluate mistakes.

Probably the best way to socialize soldiers and leaders into the learning culture is to institutionalize a variation of the AAR into every activity a unit conducts. A quick AAR can be conducted after motor stables, road marches, physical training and even command and staff meetings. Another technique: every day before the close of business, assemble the leaders and ask the simple question, "What have we learned today?"

Appraise and reward behavior consistent with the desired outcome. With the new OER, the Army has established a way of rewarding leaders for promoting learning in their units. For soldiers and NCOs it may be somewhat more difficult, other than saying, "good job." However, publishing their ideas is one way to reward those individuals. This is not difficult and is essential to the total Army Lessons Learned Program. Being published in a CALL bulletin should have some bearing on qualifying for an "Excellence" in the competence block of the Noncommissioned Officer Evaluation Report. Regardless of the professional benefit, seeing one's name in print is often reward enough.

Organizational design that reinforces key cultural values among all members. The problem of suboptimal structure within tactical units has already been discussed, but there is a powerful link between an organization's structure and its culture. While Army doctrine does not address how to structure a learning organization within a tactical unit, leaders can still configure learning systems within their units. Some of these techniques have already been identified. However, the best way to illustrate the point is by providing a recent example.

During Operation *Joint Endeavor*, the 1st Armored Division (AD), commanded by Major General William Nash, effectively established a model learning culture for units both in peacetime and during contingency operations.[15] The 1st AD was the nucleus of the "Multinational Division-North" (MND-North), one of three multinational divisions forming the Implementing Force (IFOR). MND-North, or Task Force (TF) *Eagle*, was to help implement the requirements outlined in the General Framework Agreement for Peace (GFAP), which the former warring factions of Bosnia-Herzegovina had signed on 14 December 1995.

Nash's program centered on the brigades within his TF. Each TF brigade was required to conduct frequent AARs. The information from the AARs was documented and submitted to the division headquarters through CALL's team chief, who was in charge of CALL's collection effort in Bosnia. The team chief initially worked directly for Nash, but on subsequent CAAT's the team chief worked for the G3. The information usually passed via e-mail or on the maneuver control system (MCS). The team chief or his designated representative would then analyze the information and write what came to be known as "The Latest Lesson Learned" bulletin. Nash would review the bulletins and those approved would be disseminated to all platoon-size TF units. A new bulletin would be disseminated every 72 hours in paper copy, through the MCS and on e-mail. Additionally, a "Lessons Learned" e-mail folder allowed all units easy access.

The key component of the process was the AAR. The brigades required all platoons to conduct AARs and document the results. The battalion S3s maintained copies of the AARs and archived them. Additionally, at least once Nash facilitated a TF level AAR after the TF had experienced several "mine incidents." For this particular AAR, the brigades were required to develop mine-awareness packets that contained the results of the platoon-level AARs and the lessons from the mine incidents. Each brigade commander was required to brief the significant findings from the AARs.

Soldiers from the 3/5 Cavalry conduct mine sweeps after the destruction of a HMMWV in the Russian brigade area. This and similar incidents led 1st AD to order its brigades to develop mine-awareness packets.

During Operation **Joint Endeavor,** *the 1st AD effectively established a model learning culture for units both in peacetime and during contingency operations. . . . The CALL team chief initially worked directly for the division commander, but on subsequent CAAT's the team chief worked for the G3. The information usually passed via e-mail or on the maneuver control system. The team chief or his designated representative would then analyze the information and write what came to be known as "The Latest Lesson Learned" bulletin.*

The TF *Eagle* model for learning provides a methodology for leaders at every level throughout the Army. Keys to learning lessons:

● Leaders must mandate that AARs occur frequently. At a minimum, after all peacetime training events and after completed missions during contingency operations.

● The results of the AARs must be documented and archived. There must be a system to identify mistakes and "relearned" lessons. If this is the case the unit may have a systemic problem to address. One TF battalion addressed the status of "lessons learned" from previous AARs. The commander required leaders to describe the steps implemented to prevent reoccurring problems.

● There must be a system to disseminate the lessons. As organizations become more automated this sharing is easier, although smaller units may still

> *The Turkish market in Sarajevo, where citizens walk free from mortar attacks, shows the fruits of our soldier's labor in Bosnia. It is not a stretch to say that our soldiers' ability to learn and adapt to an ambiguous environment has contributed to that success.*

rely more on oral and hard-copy dissemination, particularly at company level and below. The requirement to maintain written copies of the lessons remains.

● The lessons must come through a central agency for analysis before they are disseminated. Nash pointed out that "Lesson learning is dangerous business."[16] Leaders must ensure soldiers do not learn the wrong lessons. What may have worked in one instance may have been an anomaly.

● The unit leader must establish an environment that facilitates a "learning culture."

● Clearly, the CALL CAAT greatly facilitated collection and dissemination of lessons learned. On major contingency operations, a CAAT will likely deploy with the unit. Nash used the CAAT as part of his staff. However, such a system, with or without a CAAT, must be established.

One may ask, "What benefit did TF *Eagle* gain?" In an environment where death or injury was literally a step away, casualties to mine incidents were very few. Other lessons include everything from conducting joint patrols with the Russians to techniques that prevent tent fires.

The most prominent example is probably the overall success of the mission in Bosnia, where only two-and-a-half years ago the former warring factions were intent on making one another extinct. The Turkish market in Sarajevo, where citizens now walk free from mortar attacks, shows the fruits of our soldier's labor in Bosnia. Our soldiers' ability to learn and adapt to an ambiguous environment has contributed to that success.

The leader with the imagination and the will to create a learning organization can do it. The key is creating a "learning culture" within the unit. The leader must articulate a learning ideology and establish the standards for learning in the organization. Those standards must be routinely reinforced, and new members of the unit—particularly leaders—must receive training on key components of the program, such as how to conduct AARs. The results from AARs must be documented, disseminated, archived and re-addressed when systemic problems are identified.

Leaders are the focus of every unit's learning program. The success of the program depends on leaders' ability to sustain an environment that encourages learning as a unit value. After the first six months of *Joint Endeavor*, Nash said, "The impact of sustained operations should be, for our junior leaders, a career-defining experience that internalizes in their professional souls the lessons of doing things right. We must take advantage of this unique opportunity to create a cadre of professional soldiers who are able to sustain operations to standard and have the moral courage to do what's right all the time."[17] Every day, wherever soldiers are deployed, whether in training or on a contingency operation, the opportunity to internalize lessons confronts leaders who are willing to learn. *MR*

NOTES

1. Michael Howard, "Military Science in the Age of Peace," *RUSI, Journal of the Royal United Services Institute for Defence Studies* (March 1974), 6.
2. US War Department, *Lessons Learned and Expedients used in Combat: Pamphlet 20-17* (Washington, DC, July 1945), iii.
3. *Learning* is a rated block on the OER. Raters are to evaluate officers both on individual learning and on unit learning. The new US Army Field Manual (FM) 22-100, *Army Leadership*, 31 August 1999 also identifies *learning* as a "senior leader action."
4. Gordon R. Sullivan and Michael V. Harper, *Hope Is Not A Method* (New York: Times Business, 1996), 197.
5. Peter Senge, *The Fifth Discipline* (New York: Doubleday Publishing Group Inc., 1990), 14.
6. Sullivan, 189.
7. Ibid., 193.
8. Dennis J. Vetock, *Lessons Learned: A History of US Army Lesson Learning* (Carlisle Barracks, PA: US Army Military History Institute, US Army War College, 1988), 127.
9. Department of the Army Regulation 11-33, *Army Lessons Learned Program: System Development and Application* (Washington, DC: US Government Printing Office [GPO], 1989), 5.
10. Ibid.
11. Vetock, 127.
12. Sullivan, 193.
13. US Army FM 25-101, *Training the Force: Battle Focused Training* (Washington, DC: GPO, 1990), 5-2.
14. Justin Gubler, "Unit Simulation Training System After Action Reviews [AAR]: A Novel Approach to Achieve Effectiveness" (Masters Thesis, University of Central Florida, 1997), 139.
15. I spent six months in Bosnia as a CALL collections officer, three months were with the 1st Brigade, 1st Armored Division, commanded by COL Greg Fontenot; and three months in Tuzla, Bosnia, as the CALL team chief, responsible for collecting, analyzing and disseminating lessons throughout the TF.
16. Center for Army Lessons Learned, *Operation Joint Endeavor Initial Impressions Report: Initial Operations* (Fort Leavenworth, KS: US Army Combined Arms Center, 1996), iii.
17. Center for Army Lessons Learned, *Training While Employing* (Fort Leavenworth, KS: US Army Combined Arms Center, 1997), II-6.

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^M_RInsights

Revolutions in Military Affairs: From the Sea
by Commander James J. Tritten, US Navy, Retired

Many have described contemporary revolutions in military affairs (RMA) but base their models primarily on the experiences of ground forces and armies. Because of additional examples from the sea services, we need a new RMA theory. But whatever the context, we must be wary of claiming that technology redefines RMA in relation to doctrine.

An RMA is a fundamental shift in military strategy, doctrine and tactics that most often occurs because of a technological change. As an RMA occurs, it influences the need to reconsider all existing military theory and any necessary transition to a new warfare process. Industry or the research community often present new technological opportunities to the military, which then considers developing new capabilities and supporting doctrine. With some technological opportunities warfare's nature and theory shift, requiring new strategy, doctrine and tactics.

Navy RMA

A clear-cut example of a traditional RMA caused by technology was the introduction of naval artillery during the age of sail. Naval artillery changed the fundamental nature of war at sea from ramming, boarding and hand-to-hand fighting to standoff destruction by shipboard artillery. During the Spanish Armada's defeat in 1588, the Spanish combat concept focused on boarding enemy ships in a general melee. The English kept their distance using long-range artillery to wreak havoc on the Armada.

As new forms of specialized warships with cannon appeared, merchantmen went back to hauling cargo. Eventually navies learned how to mass firepower in the maritime battlespace and introduced the line of battle—similar to lines of battle ashore.

An RMA also causes changes in military organization. As mariners mastered the RMA that added artillery, navies assumed other missions.

National fleets soon reorganized under centralized command and control. Parts of fleets remained dedicated to supporting ground forces' maritime flanks. Other naval forces became distant water-expeditionary forces. Some navy units interdicted sea lines of communications (SLOC); others protected SLOC. Main battle fleets dealt with enemy forces.

The revolution in sea-based artillery required professional navies to master its potential, and privateers soon disappeared. The end of privateering and using commercial ships in fights caused a major naval-warfare paradigm shift. However, the shift to distant battle did not occur overnight. Artillery was considered a complement to boarding and hand-to-hand combat. Eventually ramming also died out, although it resurfaced for a short time following its success at the 1866 Battle of Lissa.

Lack of Maritime Parallels

Rifles and machineguns contributed to shore-based RMAs. Ground warfare lines of battle were replaced by the infantry skirmish and maneuver warfare. New ground-force weaponry increased combat's spatial and temporal scope, requiring better logistic support and planning. At sea, the introduction of rifled artillery and armor—coupled with steam propulsion, the screw propeller and modern communications systems—contributed to new combat uses for the fleet. But, they did not constitute an RMA in the purest sense.

Newly designed ships with rifled artillery, such as HMS *Dreadnought*, made entire national fleets obsolete. Armor countered the new shells, and a duel ensued between the offense and the defense. Fleet units under steam instead of sail, aided by radio, could rapidly mass for decisive engagements, maneuvering

where they wanted rather than where the winds took them. Despite the infusion of technology, navies were still about "slugging it out" with an enemy line of battle in artillery duels. For every RMA ashore, there is not necessarily a parallel one at sea.

Second Modern Navy

The marriage of airplanes, tanks and mobile artillery gave rise to another shore-based RMA. The *blitzkrieg*, a form of maneuver warfare that doomed positional warfare, positing the theory that rapid annihilation could be practiced ashore. By World War II's end, allied military forces were engaged in simultaneous strategic-level combat actions in all theaters of war. The 1945 Soviet Manchurian Operation was perhaps the finest example of this form of warfare.

A rough maritime parallel to the *blitzkrieg* was the World War II advent in the Pacific of the fast carrier task force and its accompanying logistic train. Such forces roamed the oceans, searching for enemy battle fleets, which could be engaged by aircraft at vast distances from the attacker's fleet. Alternatively, naval task groups were formed to penetrate enemy shore defenses, bypassing strongpoints in their own form of maneuver warfare.

These new forms of warfare were not fully accepted by old-line navy officers; "slugging it out" with the battleline and surface ships finally died at Surigao Straits during the 1944 Battle of Leyte Gulf. Naval artillery yielded to the ascendant airplane and missile. Naval warfare had finally changed to a more complex form of combined arms warfare.

Problems with the Existing Model

Detailed examination of historical RMA ashore suggests that the technology-leading RMA model is inadequate. Often, new technology is not immediately recognized as

causing an RMA or as needing new doctrine or organization. The failure of medieval mounted knights and ground-slogging infantry to adapt to firearms is, perhaps, a classic example.[1] Firearm use by both knights and infantry did not immediately cause major changes in the fundamental nature of medieval warfare. Four centuries passed before firearms had improved enough to create a true RMA.[2]

As medieval foot soldiers gradually lost their ability to fight as cohesive units, they were upstaged by mounted soldiers. The Swiss Confederation discovered that infantry could counter mounted soldiers by improving tactical formations *alone*. Infantry squares, resembling the old Macedonian phalanx, armed with an equally old technology, long pikes or spears, permitted foot soldiers to withstand the charge of mounted horsemen, attack with hand weapons, unseat the knight and defeat him as he lay relatively helpless on the ground. These changes in tactical doctrine eclipsed the knight, although folklore persists in crediting firearms with the knights' demise.

At sea, the shift from naval artillery to combined arms maneuver warfare took relatively few decades. Navies first tried using new technologies to improve existing concepts. Early in World War II, the fast carrier striking force's development as a mobile reconnaissance strike complex resulted from prewar planning, technological opportunities and experience.

The subsequent shift to nuclear warfighting was an RMA introduced by new technology. Although nuclear warfighting at sea was embraced in the form of long-range submarine-launched ballistic missiles aimed at shore targets, world navies never fully adopted it as a new model of combat. They never subordinated their campaign and operations planning to the same type of nuclear combat routine as did the US Air Force's Strategic Air Command.

An underlying assumption about RMAs is that nations will always capitalize on new technologies. Hence, before a new technology "genie" gets out of the bottle in some potential enemy nation, there needs to be a countervailing technology. Similar logic suggested that when faced with a potential RMA, nations would strike first before a competitor gained a decisive advantage. A more detailed study of technological opportunities indicates a far different model of national behavior.

By the mid-1930s, the Imperial Japanese Navy (IJN) recognized that, despite all the technological and industrial efforts to upgrade the fleet, its projected capabilities would not produce a force equal to the rapidly improving US Navy. The IJN developed night tactics and eventually formed specialized night combat groups intended to weaken the US Pacific Fleet by forcing night battles before subsequent daylight battles. This tactic strained the defenders' nerves, stamina and reserve.[3]

Thus, a technological threat was met with a doctrinal, *not* technological, solution that theoretically negated new technologies. Until the US Pacific Fleet mastered radar, the IJN's exceptionally well-fought night attacks frequently bettered the US Navy.

Many nations, like Sweden, have done nothing to meet the challenge of a nuclear-armed and aggressively posturing neighbor. Others have sought refuge in alliances with nuclear-power states. Some nations use arms control to prevent the spread of technologies that might alter combat's fundamental nature.

There are also RMA examples that are not based on new technologies. Napoleon Bonaparte caused a major paradigm shift in ground warfare when he successfully mobilized citizens to fight for ideas, not money. During World War II, armies using mass caused a shift in the basic object of warfare ashore from seizing territory to defeating the enemy. Because entire nations had mobilized for war, the US considered the enemy's economic base a legitimate military target.

Did technology play any role in causing this major paradigm shift in warfare—the shift to consider the entire nation as being at war? Modern industrial capability certainly was required for such an effort. Did technology merely react to a new vision for warfare? Clearly, technology allowed for attacking the full breadth and depth of an enemy nation.

Military Doctrine and RMA

Since the early part of the 19th century, technology and the frequency and participants of war have profoundly affected the nature of Navy doctrine. Since the ironclad was introduced, technology has changed so fast and so often that navies have had little time to deal with doctrinal issues. Early on, warship designs advanced faster than navy doctrine could be reevaluated and rewritten, forcing the Navy to concentrate more on improvements to naval art and combat potential than on how to fight "smarter."

The basic model of an RMA, with technology in the leading role, is incomplete. RMAs are also stimulated by doctrinal development, which can create a "vortex" or begin a new cycle, during which doctrine pulls on the future development of technology. Advances in technology would subsequently result in alterations to organization and doctrine. In such an alternative case, military leaders would first outline a vision, concept or doctrine, then refine the vision in terms of capabilities desired, culminating in a concept-based requirements system. Industry's role under this approach would be to respond to visions, concepts and doctrinal development.

To use visions, we must also have a theory for how large bureaucratic organizations translate them into actual change. Our theory should draw from the excellent work being done at business schools in their investigations of "learning organizations" and the special skills required of leaders in such organizations.[4]

An excellent example of how military doctrine can lead technology is that of Japan during the interwar years. The IJN's doctrine for deep ocean battles was part of the vision for a short war of annihilation. The IJN generally insisted on technological superiority in each individual weapon system produced. This resulted in a search for new technological opportunities to carry out the preferred vision. As a result of doctrine's leading role, the IJN fielded the Yamato class super battleship and the Mitsubishi Zero fighter—two examples of good doc-

trine leading to excellent warfare technology. The US Army Training and Doctrine Command (TRADOC) recently issued TRADOC Pamphlet 525-5, *Force XXI Operations*, which posits the use of doctrine to shape the ongoing RMA with a visionary statement of the future battlespace.[5]

The basic RMA model is flawed in its fundamental assumption that doctrine depends on technology as its major input or output. The Napoleonic RMA was probably more a product of political, social and economic conditions than any specific military technology. Understanding how doctrine influences RMA requires a look at other factors that can impact doctrine.

Future RMAs

New technologies often have been introduced for which there is no accepted military doctrine. Improvements to combat potential increasingly are seen as the result of effective programming skills rather than skills in assessing warfighting doctrine. Today's military needs to shift focus to other, less-expensive ways of improving combat potential than concentrating on new technologies. The continued search for "silver bullets" in new technology distracts us from perfectly good solutions. Leaders would more likely rather have time to train and learn how to use the last gadget before they receive the next!

"Learning organizations are those where the individuals within . . . continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together."[6] Learning organizations also have a shared vision of the future, which is one of the five cornerstones necessary for such organizations.

During World War II, the German Army was a learning organization when it assessed recent combat experience, then made ongoing changes to its combat doctrine. The US Navy also learned from its combat experiences and changed its doctrine.[7]

Whether the US military is experiencing a current or ongoing RMA can be debated. However, what is known is that future RMAs will occur, and we will need to manage changes, create processes and restructure organizations to deal with them. We must change military doctrine commands and training centers into learning organizations that share a vision of the future. Leaders in such organizations must be process designers, stewards of the vision and teachers who foster learning. "The new type of leader is charged with building an organization . . . where people continually expand their capabilities to understand complexity, clarify vision and improve shared mental models.[8]

Whatever the new paradigm, the US military must not overlook doctrine's leading role in stimulating technological development. Doctrinal development in support of paradigm shifts and RMAs must first communicate the future battlespace vision, develop operations concepts, test those operations by interacting with the fleet and the analytic community, then develop prototype doctrine. From approved doctrine can come training requirements as well as other methods to improve combat potential irrespective of technological change.

Introducing new ideas and managing change is a difficult task that requires the combat warrior's experience and leadership skills and the Washington in-fighter's administrative and bureaucratic skills. *MR*

NOTES

1. Hans Delbruck, *History of the Art of War*, vol II: *The Barbarian Invasions*, Walter J. Renfroe Jr., trans (Lincoln, NE: University of Nebraska Press, 1985), 411; Delbruck, *History of the Art of War*, vol III: *Medieval Warfare*, Walter J. Renfroe Jr., trans (Lincoln, NE: University of Nebraska Press, 1985), 327, 468, 635, 650-56; Delbruck, *History of the Art of War*, vol IV: *The Dawn of Modern Warfare*, Walter J. Renfroe Jr., trans (Lincoln, NE: University of Nebraska Press, 1985), 41, 126.
2. Vasily Danilovich Sokolovskiy, ed, *Soviet Military Strategy*, 3d ed, analysis and commentary by Harriet Fast Scott, ed (New York, NY: Crane, Russak, 1980), 229.
3. David C. Evans and Mark R. Peattie, *Kaigun [Navy]: Strategy, Tactics and Technology in the Imperial Japanese Navy, 1887-1941*, draft book manuscript, August 1994, chap 8.
4. Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York, NY: Doubleday, 1990), 339-63.
5. US Department of the Army, US Army Training and Doctrine Command (TRADOC) Pamphlet 525-5, *Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century* (Washington, DC: US Government Printing Office, 1 August 1994), with 8 September 1994 errata, 1-3, 3-20, 4-2.
6. Senge, 3, 9, 205-32.
7. Admiral W.H. Standley, *Doctrinal War Instructions: United States Navy, 1934*, FTP 143 (Washington, DC: US Government Printing Office), 28 March 1934. These instructions stressed the future of joint warfare. FTP 143 revises an earlier version that drew on World War I lessons.
8. Senge, 340; see also Paul Bracken, "The Military After Next," *The Washington Quarterly*, 16, 4 (Autumn 1993), 171, for a discussion of the need for "organizational learning."

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Diplomacy by Other Means: JTF *Aquila* Responds to Hurricane Mitch

by Brigadier General Virgil L. Packett II, US Army, and Captain Timothy M. Gilhool, US Army

In the 19th century, military philosopher Carl von Clausewitz called warfare "the continuation of diplomacy by other means." Entering the 21st century, US Armed Forces stand ready to meet that challenge and implement US foreign policy in other ways. The military now spearheads US diplomatic actions in the Balkans, leads the way in Eastern Europe through Partnership for Peace exchanges and will now conduct combined peacekeeping exercises with South Africa to strengthen ties in that region. An opportunity

A JTF medical officer attends to a young patient's minor injury.

to make a significant contribution in our hemisphere came in late October 1998.

Hurricane Mitch, a Category 5 storm ranging almost 1,500 miles in diameter and packing sustained winds of more than 290 kilometers per hour, tore a ragged path through the heart of Central America. Later described as the most destructive force to hit the region in modern times, it caused over $3.5 billion in damage and displaced over 3.1 million people. From tragedy, though, came growth, rehabilitation and renewal. The United States and its Central American neighbors worked together, forging new bonds of friendship after decades of revolution, bloodshed and misunderstanding.

Theater Engagement

Responsibility for the region of the Caribbean, Central and South America fell squarely on the US Southern Command (SOUTHCOM). SOUTHCOM is headquartered in Miami, Florida. It interacts with the nations in its area of operations through US Military Groups in local US embassies; component commands oriented on the region—US Army South (USARSO) Special Operations Command South and the 12th Air Force, which serves as Southern Command Air Forces— and forward-deployed joint task force (JTF) *Bravo* at Soto Cano Air Base, Honduras. The JTF has served as a forward base for US in-

terests in the region since 1981. After USARSO left Panama, JTF *Bravo* became SOUTHCOM'S strategic gateway into the region.

Hurricane Mitch Response

On 6 November 1998, President Bill Clinton formally directed the Department of Defense to aid hurricane-stricken Central American countries. Before the formal order arrived, the commander in chief of SOUTHCOM, General Charles E. Wilhelm, had already considered the immense workload and decided to form a second JTF to coordinate and implement disaster relief operations in Guatemala, El Salvador and Nicaragua.

JTF *Bravo* simply could not leave the devastation in Honduras, which was just as significant if not greater than in the other countries, to provide the appropriate level of support elsewhere in Central America. The Hurricane Mitch disaster relief operation was dubbed Operation *Fuerte Apoyo*, which means "Strong Support," and the new JTF was named *Aquila*, which is Spanish for "Eagle."

While units were being deployed by their services to fill out the JTF, SOUTHCOM Deployable Joint Task Force Augmentation Cell (DJTFAC) arrived in-theater and quickly established basic life support and the operational base for JTF *Aquila.* Consisting primarily of planners, the

DJTFAC was designed to join an existing JTF and help plan for future operations. This was the DJTFAC's first operational deployment. For Operation *Fuerte Apoyo*, the DJTFAC became an action cell, validating the concept and operational need for a contingency cell with a regional perspective and ties to the CINC's headquarters. The cell served as the advance staff until the Joint Chiefs of Staff, US Atlantic Command and US Army Forces Command identified the rest of the units to fill out the JTF.

Following guidance from the CINC and JTF commander, DJTFAC developed the mission framework and wrote the JTF operations order. The commander's intent was to employ JTF *Aquila* expeditiously to mitigate near-term human suffering caused by Hurricane Mitch in El Salvador, Nicaragua and Guatemala. After conducting medical and engineer assessments, the JTF would work to restore critical ground lines of communication and set the conditions for long-term recovery and rehabilitation in these countries.

The operation was divided into four phases: deployment, rehabilitation, transition and redeployment. A 90-day deployment was envisioned, with 20 days of movement into and out of the joint operations area (JOA) and 50 days of actual project work. The intent was to focus priorities and resources immediately for work in the most critical areas. Obviously, isolated areas needed humanitarian relief supplies—roads needed to be opened, especially to help local farmers get crops to market and to kick-start sagging economies. Gradually, operations would "step down," responsibility for individual countries in the JOA would transition to JTF *Bravo* and deployed units would return to their home stations.

Challenges

The limited number and quality of ports and airfields presented significant challenges for JTF *Aquila*'s deployment. The need for speed mandated that almost every unit deploy by strategic airlift. Nearly 5,000 soldiers, sailors, airmen and Marines from 32 bases in 18 different states

and one US territory moved by strategic airlift into the JOA.

Deployment

The seaward deployment and subsequent port operations were the largest that any of the three nations of Central America had seen. Logisticians had to establish port support operations from scratch, coordinate staging areas and prepare to receive the immense amount of equipment.

Reception. US-flagged cargo carriers, roll-on/roll-off ships and US Army utility landing craft transported over 2,000 pieces of rolling stock plus containers from the US ports of Beaumont, Texas, and Wilmington, North Carolina, to the sea port of debarkation (SPOD).

Staging and onward movement. Most staging areas were small, so rigid timelines were developed to ensure onward movement preceded subsequent ship arrivals. However this phase generated additional safety and security concerns and requirements for workers' and drivers' life support.

Integration. Integration went smoothly at Puerto Quetzal, the SPOD for initial deployment in Guatemala. Quetzal was only 10 kilometers from the forward operating base and was collocated with the main headquarters at Paracadista Base. Puerto Acaqutla in El Salvador was approximately 120 kilometers from JTF headquarters at Comalapa. This relatively short distance followed a narrow, winding road along the seashore, through hairpin turns, cliffs and seven tunnels and took one day to traverse. Nicaragua presented a more significant challenge. The 250-kilometer trek into the country's interior meant coordinating rest stops and an overnight stay with host nation (HN) security escorts. All convoys arrived on schedule with no accidents or damage to equipment or supplies, adding up to a total of 115,000 accident-free miles for operations in Nicaragua.

Engineer Assets

The primary goals of US military engineer units were to support HN efforts to relieve near-term human suffering, effect "remedial rehabilitation" of parts of the HN infrastructure and facilitate long-term regional recovery. Units could not rebuild every house, repave every road or return the countries to their pre-Mitch conditions within the operation's short span. However, they could make the difference between life and death for many people. Engineer priority of effort went to restoring critical ground lines of communication, including building stream and river crossings between farms and markets, repairing washed-out and heavily damaged roads and establishing a limited number of low-water crossings and footbridges.

US Army, Air Force and Marine engineers did yeoman's work. The more significant projects included hydrography design and construction in Guatemala and diverting two rivers in Nicaragua to help build low-water crossings and manage flood waters during the rainy season. Across the three countries, the units completed 64 primary and ancillary projects, including 200 kilometers of road repairs, 24 bridges and low-water crossings, four new wells, 115 cleaned and reclaimed wells and one new medical clinic. Although engineers could not totally repair all the damage caused by Hurricane Mitch, they did take care of the essentials (roads, bridges and clean water) and set the conditions for future work and further success.

Medical Services

Like JTF engineer operations, medical units deployed for Operation *Fuerte Apoyo* could not save all the people or cure all the ailments in the JOA. Their mission was two-fold: conduct medical assessments with HN ministries of health, providing technical assistance in rehabilitating human health services; and provide all levels of medical care to deployed US forces, including dental, psychiatric and trauma services. To provide these services to both the JOA and the JTF, the United States deployed almost 50 percent of the Army XVIII Airborne Corps' medical capability.

The final figures bear testify to the large impact of US military medical personnel. Over seven weeks, 34 medical humanitarian action missions treated nearly 16,000 people,

the majority (10,187) in El Salvador. Veterinary units also treated 6,528 animals, giving 9,000 vaccinations. Most of these animals were dogs; it was remarked more than once that every Nicaraguan family must own one. The average Central American saw US Army nurses, Air Force doctors and Navy corpsmen more than any other element of the JTF. These service members personalized the United States' physical commitment to help after Hurricane Mitch.

Civil Affairs (CA)

While CA units cannot claim credit for the number of patients seen, kilometers of road repaired, gallons of potable water produced or the specifics of any other projects, they can claim credit for being involved in every operation. CA quickly became the focal point for coordination between the JTF and numerous HN government and non-government organizations, as well as several international relief and private volunteer organizations. The successes flowed from CA's linguistic skills and the enduring relationships from previous deployments to the region. In El Salvador, CA helped identify and resource additional humanitarian and disaster relief missions beyond the original project list. One of the biggest examples of this expansion involved US military vehicles moving nearly 800 short tons of donated food from the port of Acajutla to a distribution center in San Salvador. In Guatemala, CA teams were instrumental in procuring both medical and engineering supplies for the task force.

The Crown Jewel

Floods and mudslides wiped out the Nicaraguan village of Wiwili in the mountains north of Managua and with it an important medical clinic. One of the first US responses to Hurricane Mitch was a pledge to rebuild the clinic, a formidable task. Both the main and secondary roads leading to the village had been washed out, and all supplies would have to be brought in by helicopter.

Over the course of two months, CA personnel helped engineers and medical personnel from TF *Nicaragua* build two 40 by 100-foot structures,

complete with plumbing and electricity. They also donated medical equipment and supplies from the US Army and the US Agency for International Development.

Constructing the medical clinic combined the efforts of all JTF elements—engineer, medical, aviation, logistics, signal and civil affairs. The project attracted so much praise and attention that Clinton and Nicaragua's President Arnoldo Alamen asked to visit the site.

Accomplishments

Operating hand-in-hand with embassies, HN ministries, military leadership and private volunteer organizations in the JOA, JTF *Aquila* provided amazing relief. It treated nearly 16,000 patients; vaccinated 9,000 animals; repaired 24 bridges and river crossings and 207 kilometers of roadways; and delivered 6,500 short tons of relief supplies. These numbers exceeded the original estimate of what would be needed and represent the many additional and ancillary projects that developed as the mission continued.

JTF *Aquila* made a significant difference in the lives of thousands of people. Personal and professional relationships that developed between JTF soldiers, sailors, airmen and Marines and their hosts bode well for future international relations.

Only the magnitude of storm damage caused Nicaragua to allow US forces into the country. During the 1980s, US-Nicaraguan relations had been openly hostile as the United States trained and financed Contra rebels fighting Nicaragua's socialist, pro-Cuban government. Therefore, Nicaraguan Army Chief of Staff, General Joaquin Cuadra and the Nicaraguan government were skeptical of the US commitment to Central America.

Several other countries had pledged aid and support for disaster relief, only to leave after media attention subsided. When the JTF commander listed the amount of personnel, equipment and supplies the United States would be bringing into his country, Cuadra left the room. Returning with a pen and pad of pa-per, he asked the JTF commander to repeat the amounts. Other countries send words, Cuadra later said, America sends equipment. This US commitment and follow-through will reap benefits for years to come.

Operation *Fuerte Apoyo* was an enormous success for the US military and the people of Central America. US soldiers, sailors, airmen and marines nobly represented their country. Troops interacted with villagers, soldiers and officials in Guatemala, El Salvador and Nicaragua. Stronger ties emerged with each country, especially Nicaragua, where the first official military-to-military contact in over two decades has been established, thanks to this operation.

Everything is Training

The US military has undertaken many missions since the Cold War's end. With continuing requirements to deploy units for peacekeeping, humanitarian assistance and disaster relief, commanders have become more concerned with combat readiness. Operation *Fuerte Apoyo* exercised units rather than distracting them from combat training. Deployment and on-the-ground operations were fantastic training opportunities for logistic, engineer, medical and aviation units to operate in an austere, real-world environment and perform wartime missions. The majority of units deployed in Central America did what they would do during wartime, training as they would fight. Units conducted rapid deployment; reception, staging, onward movement and integration operations; established their bases and life support; and rapidly transitioned to conduct operations. Force protection, though not at the same level as in an active combat zone, was a constant factor in mission planning and execution.

Over the course of three months, the JTF conducted many complex, simultaneous operations. Units, staffs and soldiers were tested against a real-world, lives-in-the-balance standard and passed with flying colors. Units that can move, operate and communicate well in a stressful peacetime deployment are well on their way to being ready for war.

The Future

The end of Operation *Fuerte Apoyo* is not the end of the story. It is in fact, a new beginning. Hurricane Mitch energized US involvement in Central America. The US government has committed itself to promoting long-term recovery in the region. JTF *Aquila* set the conditions and will continue operations, albeit with different units and commanders, from Soto Cano Air Base in Honduras, directing US National Guard (NG) and Reserve Components (RC) New Horizons projects, which continue reconstructing damaged and destroyed roads, schools, houses and providing medical and technical assistance. Over 24,000 NG and RC troops—25 separate NG and RC battalions—were involved in disaster relief operations by the end of FY 1999. SOUTHCOM will have many projects for years to come, providing ample opportunity to strengthen friendships between the United States and Central American countries. Out of Hurricane Mitch came humanitarian assistance and foreign policy opportunities that will extend into the 21st Century. ***MR***

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Land Warfare: 21st-Century Theory and Doctrine
by Lieutenant Colonel Richard D. Hooker Jr., US Army

For the fifth time in 20 years the US Army is rewriting its capstone doctrinal manual, FM 100-5, *Operations*. Today's Army is smaller, leaner, more technologically capable but also more fragile. With a smaller force, but a decisive technological edge, the modern Army's challenge is to achieve the nation's strategic objectives rapidly and decisively without using overpowering mass and fires.

The Army must make the right doctrinal choices for tomorrow in a world that is different but still dangerous. It needs a new doctrine and approach to joint warfare and joint operations. In the air and at sea, US adversaries cannot compete, but our land forces face many major threats. Because human conflicts remain struggles for land and its populations and resources, getting the doctrine of land warfare right is as important as anything the Army will do in the next generation.

Strategic Challenge

The Army's strategic posture has evolved in the post-Cold War era. Today's Army is a small, high-tech, force-projection Army with limited forward presence. To defeat potential opponents, the Army is structured to deploy rapidly over strategic distances to conduct joint and combined operations with other services and allies. US national strategy requires joint doctrine and training, service interoperability and high readiness levels to achieve credible deterrence, decisive victory in war and success in military operations other than war. Our declared strategy commits us to fighting and winning two major theater wars, each roughly equivalent to the Gulf War, which could overlap.

The United States no longer faces a hostile superpower threatening the nation's survival. But the Soviet Union's demise has brought a return to severe regional conflicts grounded in age-old religious, cultural and ethnic enmities. In the former Soviet Union, the Balkans, sub-Saharan Africa, the Middle East and Southwest Asia, the collapse of bipolarity has revived and encouraged inter- and intrastate conflicts. In the Korean Peninsula and Iran, authoritarian regimes preaching hatred of the west continue to threaten our allies and interests.

In some ways, the Army's task is now harder. While all the services are smaller, the Army has absorbed a disproportionate share of force reductions that followed the Cold War's end. The Army lost 40 percent of its active force structure and is now manned at its lowest level since before World War II. This loss of mass and supporting infrastructure is accompanied by deep cuts in the Army's budget. The Army is now less able to face powerful regional opponents with traditional methods.

For decades, the Army fought with overwhelming firepower and ample logistics, supported by dominant air and naval forces. Army doctrine emphasized positional, linear warfare. Army forces maneuvered to place massed firepower on the enemy. This approach to land warfare proved overwhelmingly successful in destroying enemy forces in the field. However, today's Army lacks the size, mass and abundant resources to wage prolonged positional warfare. Clearly, it is time for a bold shift in how we apply power to win on land.

Doctrine and Theory's Role

What is doctrine? The common short definition—"how to fight"—misses the crucial point that campaigns, battles and engagements are unique events, each with its own context and circumstances. The rigid application of rules or formulae is a sure road to disaster. Tactics, techniques and procedures show us how to fight. Doctrine shows us "how to think" about fighting. This distinction is the first step to understanding what doctrine is and why it is central to victory in battle. Doctrine is a thought process for solving problems in war. The basis of all doctrine is a sound theory of war.

The link between theory and doctrine is fundamental—indeed, inescapable—because theory provides two things we need to make decisions in war—a mental picture of the battlefield and a rational explanation of why and how things on the battlefield interact. Though its events might seem chaotic and random, the battlefield does have its own logic. Things happen for a reason. Reduced to its basic level, that is what theory does; it describes reality and explains how and why things that comprise that reality interact as they do.

Taken a step further, a theory of war is a system of ideas that explains the dynamics of armed conflict and guides decisionmakers to success in war. Theory is essential to understanding war because it provides a framework for understanding the battlefield and solving battlefield problems. As with other forms of social intercourse, trends or related phenomena in the realm of human conflict continually recur throughout history.

Theory makes sense of war's apparent chaos by linking threads of continuity to make a coherent whole. Without theory, doctrine is little more than a random collection of principles or truisms. We use theory to comprehend the nature of human conflict and structure the way we organize forces, frame actions and conduct battlefield operations. Doctrine provides the link between theory and practice.

Of course no theory is absolute,

portraying warfare with perfect clarity and its outcomes as perfectly rational. That is why theorists who claim to predict outcomes are so often wrong. Theory cannot be predictive, but it can provide the decisionmaker a coherent explanation of what is happening and what needs to happen. Crudely put, the 80 percent solution gained by applying sound theory to battlefield understanding is a huge step forward, considering the alternative.

Our deep, rich doctrinal heritage has been a major source of success in war. Nevertheless, we have always skirted the role of theory in the attempt to formulate, publish and apply doctrine. Although the Army has a theory of war, for many reasons it has avoided the deeper questions of why things happen as they do in combat. Given the immense resources the Army traditionally has brought to the battlefield, the focus on material and technical aspects of land warfare has been enough to prevail. In the next century, this approach might prove badly out of place.

Theories of War

Broadly speaking, there are two theories or schools of thought about how armies should fight. One emphasizes firepower and mass as the centerpieces of combat operations and views maneuver as moving forces for positional advantage to deliver massed fires. It sees the battlefield as essentially linear, an environment that can be ordered and controlled. Synchronization, detailed planning and coordination, centralized command and control and an orientation on seizing and controlling terrain features are hallmarks of this "positional" or "methodical" theory of warfare.

Positional theory emphasizes technology and technical solutions to battlefield problems. In positional warfare, commanders seek to achieve fire superiority and positional advantage to bring the enemy to battle and destroy his forces. Battles and engagements are valuable opportunities to wear down the opponent. This approach is well suited to large,

industrial nations with the wealth and population to field and sustain large armies. United States General U.S. Grant, French Marshal Joseph Joffre and British Field Marshal Bernard Montgomery practiced this approach to war. With able practitioners and ample resources, positional warfare has been an effective basis for doctrine and operations.

An alternative theory of war sees the enemy's will to resist—not his armies or the terrain he holds—as the true object. Conceptually, maneuver applies strength against enemy weakness to crush resistance rapidly on a battlefield dominated by friction and confusion. While the force's size is always important, this alternative theory of war does not require numerical or technological superiority. Instead, leadership and training are its center of gravity. It uses firepower to create conditions for decisive maneuver, not to overwhelm the enemy. Speed, operating tempo, decentralized command and control and a strong focus on the enemy, not terrain, are its hallmarks.

Sometimes called nonlinear or maneuver warfare, this approach emphasizes surprise, deception, agility and the human dimensions of warfare. It relies less on detailed, deliberate planning and synchronization and more on rapid decisionmaking based on commander's intent. Nations who are numerically or technologically inferior often use this approach. Confederate General Nathan B. Forrest, German General Heinz Guderian and US General George S. Patton enjoyed great success as practitioners of this mode of warfare. Because today's US military is smaller, leaner and less well resourced, and because Americans expect rapid success at low cost, this form of warfare is better suited for today's Army.

Nations at war sometimes appear to use features from both schools. In any war, some forces will fight positional or linear battles, while others will use movement to gain an advantage. However, all nations are influenced by and base their doctrines of land warfare on one general approach or the other.

In modern history, the French, British, Russians and Americans have stressed positional warfare, deliberate decisionmaking and overwhelming mass as the keys to victory. The Germans, North Vietnamese, Chinese and Israelis—either outnumbered or inferior in firepower—have emphasized fluid warfare, decentralized decisionmaking and maneuver. Both theories offer coherent explanations of how maneuver, fires, leadership and mass should relate to each other on the battlefield. Each nation relates them in different ways and pursues a different vision of how to subdue the enemy.

An army's character is decisively influenced by the theory of war it embraces. Armies cannot switch casually from one theory, or one doctrine, to another. While they might fight positionally at one time and place and emphasize maneuver at another, they cannot embrace both philosophies at the same time as a basis for service doctrine. No army can embrace both centralized and decentralized command and control. No army can simultaneously focus on destruction by fire and dislocation and disruption by maneuver. While individual commanders can sometimes impose their visions and views of warfare on their commands by sheer force of personality and will, armies as a whole tend to fight according to one style of warfare.

Although the United States is the sole remaining superpower, a number of constraints shape the way it fights as a land power. Some constraints are resource driven; others result from institutional history and culture. Therefore, US Army warfighting doctrine:

● Must be broadly compatible with joint doctrine and the doctrine of major allies and coalition partners.

● Must be based on a force structure and resource level that can be sustained over time; that is, it must not depend on numerical superiority or massive firepower that might or might not be available.

● Must apply to all levels of armed conflict and all geographic regions in which the Army is likely to

fight.

● Must maximize opportunities for a rapid, decisive result at the lowest possible cost in casualties and resources.

● Should not assume it will have powerful coalition partners or secure lodgments.

● Should assume air and naval superiority.

● Should exploit the US technological edge over potential enemies.

● Must incorporate asymmetric threats, including terrorism and weapons of mass destruction.

With these parameters in mind, the Army can think more clearly about future attempts to refine doctrine.

Maneuver Doctrine

Although the Army is smaller and leaner, it has strengths that make it the most agile and lethal army in the world. American technology is unmatched, and US air and naval power guarantee that land operations will be supported by strong strategic logistics and overwhelming air and naval fires. The quality of the US soldier remains high, and in the last 15 years the Army has produced a tradition of success and rapid, decisive victory.

Despite these strengths, reductions in the Army's size and the requirement to be able to simultaneously conduct two major regional wars mean that traditional reliance on fires and mass no longer applies. Lost overseas bases and a wide range of possible contingencies stretch the smaller Army's capabilities even more. Thus, combat doctrine must rely on speed, agility, shock and deception to avoid enemy strengths and to strike enemy weaknesses.

High-quality leaders and soldiers, armed with superior technology and battlefield information, provide the ability to seize and hold the initiative even without superior numbers. By decisively concentrating these strengths against enemy centers of gravity, we can destroy the enemy's will and ability to resist before his main forces have been defeated. In this way, the Army can capitalize on its unique strengths to prevail against opponents without protracted combat and high losses in troops, equipment and damage to surrounding areas.

These concepts suggest a doctrinal thought process oriented on the enemy's *will* to resist, not his *means* to resist; the use of strength against weakness, not strength against strength; decentralized command, not centralized command; and use of fires to support decisive maneuver, not maneuver to position massed fires. Maneuver-based doctrine stresses a rapid decision as the goal, with speed, focus and the commander's intent as means to that end. Positional doctrine stresses the destruction of the enemy's main body as the goal, with the accumulation of combat power, seizure of terrain features and emphasis on the mission statement as means to the end. The contrast between the two is striking—and for good reason. Each is based on a strikingly different theory of war.

Maneuver-based doctrine relies on flexible, disciplined and decisive commanders to focus combat power against weak points. In today's operating environment, the ultimate objective of combat operations is to achieve a rapid decision. Everything else the Army does must support this central aim. Therefore, doctrine must preach—in fact, demand—maximum initiative at all levels, operating within the framework of commander's intent.

A shift from doctrine based on the theory of mass to one based on the theory of maneuver would incorporate the following elements:

● Attacking critical enemy vulnerabilities whose loss will cause dislocation, disruption and collapse of an opponent's capacity to resist.

● Establishing a focus of effort and concentrating decisive combat power against these vulnerabilities.

● Applying friendly strengths against enemy weaknesses to break the enemy's will.

● Avoiding force-on-force campaigns, battles and engagements that cost time, consume resources and reduce freedom of movement.

● Seizing and holding the initiative at all times through rapid offensive action.

● Capturing and exploiting battlefield information and denying it to the enemy.

Offensively, maneuver operations seek first to attack soft targets—command posts, artillery positions, logistic support areas—to disrupt and dislocate the enemy's defense. Direct attacks against enemy strong points are avoided. Where possible, the enemy's air defense and fire support systems are suppressed or neutralized before or during the direct-fire battle. Defensively, maneuver operations hold key terrain with static forces arrayed in depth and attack with mobile reserves and counterattack forces to stop, disrupt and destroy the attacker.

These concepts provide a framework for building combat doctrine. More than at any time since 1945, US national security demands an Army that can deploy quickly and win decisively without relying on protracted campaigns, large forces or overwhelming resources. The US brings many strengths to this challenge, including advanced technology, strong leadership, a supportive democratic society, a tradition of victory and the best soldiers in the world. The Army's combat doctrine must weld these together to create a decisive instrument of land warfare—a 21st-century US Army. ***MR***

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NEO Operations: The SETAF Experience
by Lieutenant General Edward P. Smith, US Army Pacific

In March 1997, when advancing rebels in Zaire threatened the safety of American citizens in Kinshasa, a joint task force (JTF) led by the Southern European Task Force (SETAF), Vicenza, Italy, was activated. Deployed and positioned immediately across the Congo River from Kinshasa, the task force validated the need for a trained and ready force to evacuate noncombatants. This noncombatant evacuation order (NEO) by US European Command (EUCOM) became known as Operation *Guardian Retrieval.*

Other contingencies and the many planning and training events since *Guardian Retrieval* helped SETAF become one of the few EUCOM assets that can routinely execute noncombatant evacuation operations. As the only light US Army conventional unit in Europe, SETAF regularly trains for that mission, providing the core JTF headquarters and an Army Force (ARFOR) ground maneuver element.

SETAF has recently executed a series of computer-assisted exercises (CAX) and field training exercises (FTX) as an evacuation force supporting a US ambassador-ordered noncombatant evacuation. Actual NEO operations validate the need for speed and agility in all aspects of planning and execution.

SETAF's fundamental NEO principle is simple: stay ready. This is easy to say, but how can we do it? Current doctrine touts the virtues of adequately preparing, shaping and responding to NEO operations.

Preparing
Preparing for NEO support begins with anticipating requirements. SETAF uses normal G2 intelligence sources; the civil affairs officer uses extensive links to open-source regional analyses by nongovernment organizations (NGO), private organizations (PVO), United Nations (UN) and other agencies; and the public affairs officer scrutinizes developing world and regional affairs and condi-

tions. All rely heavily on automation and connectivity with various information sources to track events that might involve SETAF.

SETAF staff planners and other service liaison officers regularly meet and review plans for possible NEOs in the five to seven hot spots that SETAF routinely tracks. This head start is recorded and updated on secure automation templates for time-sensitive, JTF stand-up planning.

Unified command operations plans (OPLAN) or contingency plans must always be supplemented with current operational and logistic course-of-action options. Completed off-the-shelf OPLANs are normally dated and inflexible and, therefore, need updating for use in volatile NEO environments.

SETAF regularly conducts training on using informational templates. Training includes:
- Monthly NEO staff planning drills.
- Twice-a-year seminars on JTF operations led by a mobile joint training team from Atlantic Command or Fort Leavenworth's Battle Command Training Program-Delta.
- An annual certification computer-assisted exercise.
- Crisis-action planning in anticipation of possible activation as a JTF headquarters.

Because there is little time for crisis-action planning after the JTF activates, the organizations EUCOM designates as potential JTF headquarters must train ahead. This requires an appreciation of the unique value a JTF headquarters adds.

Shaping
Shaping begins and ends in the JTF headquarters. The initial mission and joint troop-to-task analyses are the early, critical condition-setting steps that ensure the NEO's success. A JTF staff shapes the conditions under which the NEO will be executed by drilling a uniservice headquarters and its augmentees to consider joint-force capabilities, ap-

preciate precise information preparation of the NEO area battlespace and leverage all other-service augmentation. Shaping also includes:
- Tailoring and deploying early the correct assessment and requirement-validation team and decision-support staff after arming them with state-of-the art automation and reach-back communications.
- Immediately initiating an adaptive, proactive, complementary information campaign plan to create as benign an environment as possible for NEO and to gain the confidence of all involved, especially the supported ambassador and his embassy country team.
- Smoothly deploying the right joint force package at the right time to the right locations.
- Interfacing effectively with allied formations executing concurrent NEOs as well as with international organizations, NGOs, PVOs and host-nation officials.
- Maintaining ready participant forces from different services, each trained, disciplined, focused and clearly informed about rules of engagement and execution guidance.

The NEO shaping function is merely an extension of the continuous preparation to activate, form, deploy and respond.

Responding
Depending on in-place systems and simple repetitious training, SETAF response is a function of integrated and synchronic joint systems, including force protection, movement control, targeting, logistics and intelligence.

During Operation *Guardian Retrieval,* a SETAF-led JTF prepared to respond to an anticipated NEO in Western Zaire. Condition shaping was effective because the SETAF training program and standing operating procedures enabled the quick formation and deployment of initial forces. The JTF's mere presence and evacuation capabilities stabilized the situation. These initial JTF

enabling forces, including tactical airlift control elements, planning headquarters and assessment teams resulted in:

● A positive reception of US military forces by military and political officials.

● A minimum, forward-response force footprint.

● A US-initiated cooperation effort involving other international forces preparing for NEO.

● Proper use of information tools to sustain a NEO under nonhostile conditions.

SETAF learned in subsequent NEO preparations the danger of planning to use one JTF under permissive conditions then using another when conditions changed from uncertain to hostile. Such a command and control shift is fraught with problems that can contribute to failure. The obvious hazards of inserting a new JTF into uncertain or hostile conditions worsen when added to the lost relationship between the embassy and the initial JTF.

This mid-stream JTF exchange often occurs when attempting to respond "on the cheap," sending minimum forces to reduce political, military and economic costs, and often remaining within an imprecise "force cap." This approach violates the principles of war and operations other than war. It would be more logical to organize, equip and train joint forces to execute two NEO options: emergency evacuation and deliberate evacuation.

Emergency evacuation is a short-notice, high-risk operation using the most highly deployable, special operations forces available. Deliberate evacuation can be large, small or complicated. Its defining characteristic is that there is ample time to tailor and train a force and prepare for the move.

Responding effectively to a NEO requires the same resources as during preparation and shaping. Steady commitment to readiness training is the key. SETAF has learned how to prepare, shape and respond to NEOs and gears its normal garrison operations and systems to ensure speed and agility in all functions. *MR*

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Task Force *Eagle* and the Battle of the Buses
by Brigadier General David L. Grange, US Army, Retired

In September 1997, Task Force (TF) *Eagle's* 1st Infantry Division was wrapping up eight months of peace-enforcement operations in Bosnia-Herzegovina when it received a delay order from Stabilization Force (SFOR) headquarters. This operation was to serve the same purpose as a delay during combat, but it had no established tactics, techniques and procedures (TTP) for peace support operations (PSO).

Multi-National Division-North (MND-N)—TF *Eagle*—received the delay mission to buy time for Multi-National Division-Southwest (MND-SW), which was stabilizing a dangerous political/police conflict in Banja Luka, Republic of Srpska (VRS), the government seat of elected VRS President Biljana Plavsic.

The Delay Begins

The Pale, VRS, shadow government, headed by Serb leader Momcilo Krajisnik, planned an aggressive demonstration with a "rent-a-mob" to upstage a political rally sponsored by the legal government. Reliable intelligence, confirmed by eyes-on information sources, reported that from 500 to 1,000 Serbs armed with clubs, rocks and liquor were boarding buses near Pale. Krajisnik, already in Banja Luka with his henchmen and special police, orchestrated local belligerents' activities. Political leaders and SFOR commanders were concerned that the fragile Plavsic government could not withstand an onslaught of manipulative, drunken Pale Serbs. The MND-SW commander had the resources to control the situation if TF *Eagle* could delay the Serb masses until the rally ended. When the delay fragmentary order to MND-N arrived, the task force quickly refocused forces conducting other PSO. However, some coalition forces required prompting to react with the necessary speed.

Between 20 and 40 Serb buses were moving north out of the French sector (MND-SE) into the MND-N area of operations (AOR). Initial orders were to take "some time" with the inspection, checking all buses, searching and confiscating weapons, then allowing the buses to move on. Since Pale-controlled media had painted the Serb's actions as a "peaceful political rally," the commander's intent was to maintain legitimacy and prevent being accused of supporting one political group over another.

Almost every bus contained 20- to 40-year-old men who were drunk, aggressive and determined to get to Banja Luka quickly. The buses, driven by drunken drivers, moved at excessive speeds, usually in loosely organized convoys of from 5 to 15 vehicles. This dangerous situation threatened the small-unit leaders and soldiers occupying hastily constructed roadblocks.

Support Requirements

Because the buses could not transit Bosnian-Croat Federation territory, the Serbs had to remain within Srpska, which forced them through

checkpoints at Zvornik, Brcko and Modrica. Also, many roads were not conducive to bus traffic. These factors allowed time for a quick intelligence assessment that helped US forces take advantage of the terrain and lines of communications and establish support requirements:

● Delay the Pale Serbs in the AOR until 1800.

● Maintain continuous contact with the buses.

● Wear down the buses' drivers and occupants.

● Establish no-penetration lines for certain periods, then if necessary, stop all movement.

● Avoid decisive engagement and adhere to rules of engagement except as a last resort.

● Establish centralized control with decentralized operations.

● Conduct positive handoff of buses between coalition sectors.

● Maximize use of terrain and obstacles.

● Set up hasty roadblocks and strengthen them as time permitted.

● Mask tactical intent to the Serb population throughout the AOR.

● Plan for nonlethal means of crowd control.

● Provide prompt, accurate reporting using control measures, phase line crossings, passing checkpoints, occupying battle positions and "engagements."

● Establish both a mechanized and an air-assault reserve.

● Avoid establishing positions in large towns to make it harder for the Serbs to mass crowds.

Delay Tactics

Southern-sector positions were the hardest to establish quickly because of troop movement times and the need to erect hasty roadblocks. This sector, from Mount Zep north to Zvornik, was under TF *1-41 Infantry's* command, which managed to establish several successful roadblocks near Zvornik. Although some buses bypassed these positions using secondary routes, they were stopped at the major TF *1-41* roadblock just south of the Russian sector. Some US forces experienced difficult and tense situations; Serbs exited the buses and attempted to remove the obstacles and overrun

the position, but US units maintained discipline and staved off the "attacking" Serbs.

US units delayed the increasing number of buses by conducting lengthy inspections. They also negotiated with self-proclaimed leaders—including the Zvornik police chief—then allowed buses to proceed behind slow-moving SFOR vehicles that took up most of the roadway.

Once the buses entered the Russian AOR, they were again stopped, but only for a short time. The 40-bus convoy picked up speed between Bijeljina—the last major town in the Russian sector—and Brcko—the first major town in the US sector. As the Serbs moved north into the Posavina Corridor, local buses with preplanned reinforcements joined them. The determined Serbs were massing forces—now including 75 buses—and picking up momentum.

The next major roadblock network, just west of Brcko, was to prevent large, hostile crowds from assembling that could put US soldiers into a mob predicament. TF *1-77 Armor* aggressively delayed outside Brcko, handling several heated encounters with drunken and belligerent Serbs. The Serbs were weakening, however. They were tired, hungry and beginning to succumb to the hot September day.

In the Posavina Corridor, US units took advantage of available preparation time to develop a strong series of integrated positions supported by tanks and armored personnel carriers. AH-64 Apache helicopters and a Predator aerial observation vehicle provided constant reports on the buses' progress and picked up buses that bypassed delay positions by using secondary roads and trails. Time and again, Serb bus drivers took 50-passenger buses onto roads previously thought impassable. At times, SFOR raced Serbs to critical crossroads to cut off buses that had penetrated phase lines.

Civilian traffic mingling with the buses soon jammed the road network, adding to the number of increasingly agitated and angry Serbs. Some international organization and nongovernment organization vehicles caught in the traffic became

the focus of Serb wrath and were overturned—one even set on fire. US soldiers moved in quickly to protect these civilians.

The Serbs began to use a tactic that caused an immediate problem for high-mobility, multipurpose, wheeled vehicle (HMMWV)-mounted roadblock elements: they would unload up to 10 buses—about 500 people—at a roadblock and simply overrun the small, isolated group of soldiers. A force-protection issue arose when reinforcing mechanized units could not get to US troops without harming civilians. Linkups always occurred but were tenuous, demonstrating again junior leaders' and troops' courage, judgment and discipline.

When the Serbs encountered roadblocks reinforced with tracked vehicles, it was much harder for them to overwhelm US soldiers. The tracked vehicles stopped all vehicle traffic while dismounted soldiers controlled the mobs—an increasingly difficult and dangerous foot-soldier task. Ultimately, because of the many secondary roads and trails, penetrations and bypasses occurred.

Helicopters proved to be a valuable asset in the delay. AH-64 Apaches reported and recorded on video any Serbs who brandished weapons. Knowing that the buses would be searched at all roadblocks, the Serbs soon began to use privately owned vehicles (POVs) to precede the buses. Once the buses stopped, individuals in the POVs would take weapons from car trunks and distribute them to bus occupants. Roadblock positions were warned of possible firefights, and video still frames from the Apaches were later used as evidence of a lethal mob moving on Banja Luka, adding further credibility to peace-enforcement activities and tactics that day.

UH-60 Black Hawks were critical to outmaneuvering the Serbs, who were confined to the clogged road network. US units used the air-assault reserve on one occasion to land, break through to and reinforce a surrounded roadblock manned by an armored cavalry regiment HMMWV element that did not have enough dismounted soldiers to con-

trol the crowd it faced. In another case, a UH-60 delivered nonlethal agents and crowd-control equipment to a unit facing a rapidly deteriorating situation. Although the problem was resolved and the equipment was not needed, the US troops' overwhelming mobility was critical to success.

As the buses approached the boundary between TF *1-77* and the Norwegian-Polish (NORDPOL) AOR, US forces contained the mobs through complex negotiations that included bluffing drunken mob leaders and involving local police and mayors. By the end of the day, the crowd was worn down by the series of confrontations. TF *1-77* was able to maintain presence until dark. The final no-penetration line, to be enforced until 2000, was just short of the NORDPOL AOR boundary, where the delay was handed off to the MND-N force.

The Outcome

If the buses had regained momentum before 2000, snipers were prepared to shoot bus tires. This proved unnecessary. Overzealous bus drivers, trying to pass other buses in the opposing traffic lane, created a massive roadblock and Serb-on-Serb arguments began every-

where. When the arguments were over and the buses finally sorted out, it was well past 2000. Even though Serb mobs rolled burning tires into roadblocks and used other bypass techniques, the NORDPOL brigade delayed them until 2200. However, most of the highly intoxicated Serbs simply fell asleep on the buses.

Initial orders had been to delay until 1800. The mission was an overwhelming success with far-reaching implications; TF *Eagle* delayed the buses an additional 4 hours. That night, CNN televised to the world Krajisnik's public disgrace. He never received his expected "army of thugs" and was forced to leave Banja Luka. Plavsic remained in office and, in fact was bolstered by events. The well-disciplined soldiers of TF *Eagle* did not fire a shot, and no one was seriously injured.

Leaders and soldiers developed outstanding TTPs and followed doctrine on delay operations as written in US Army Field Manual (FM) 71-3, *The Armored and Mechanized Infantry Brigade*, modified according to mission, enemy, troops, terrain and time for PSO. This doctrine carried the day, for the TF *Eagle* soldiers, buttressed by the efforts of coalition partners, quickly adapted

the tenets of delay operations to PSO conditions and standards. The operation followed the same sage principles chronicled for warfighting conditions and standards in FM 71-3—delay with the fewest troops possible, retain the initiative, maintain flexibility and protect the troops. The principles remained constant, but the techniques differed. This great versatility—adapting warfighting principles to PSO quickly and with ease—validated the great capabilities of courageous, well-trained US Army soldiers offer to the ever-changing global situation. *MR*

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^{M_R}Almanac

The Bonus March: A Forgotten Stain
by Lieutenant Colonel Bryon Greenwald, US Army

The Depression-era Bonus March on Washington by World War I veterans resulted from a lame congressional attempt to provide them a pension. In 1924, over President Calvin Coolidge's veto, Congress passed the World War Veterans Act that gave each veteran an "adjusted compensation certificate." The certificates amounted to endowment life insurance redeemable in 1945. Congress "adjusted" the value of each certificate based on the length of time each man had spent in service during World War I. On redemption,

the average benefit equaled about $1,000.[1]

Veterans who returned to civilian life found their economic well-being shattered a decade later by the Great Depression's harsh economic conditions. As unemployment soared to 25 percent by 1932 and banks failed by the hundreds, veterans and millions of other Americans were soon out of work, out of money and struggling to survive.[2]

In 1931, Congress moved to alleviate some of the veterans' suffering. Over President Herbert Hoover's

veto, Congress passed an amendment to the Veterans Act of 1924 and authorized veterans to borrow up to half the value of their adjusted compensation certificate. In early 1925, Texas Congressman Wright Patman proposed a bill that would have authorized immediate payment of the balance of the bonus to veterans.

Hoover opposed the bill, fearing that if he gave in to the veterans movement, other organizations' similar demands would eventually break the Federal Treasury. Hoover believed that giving money to the

veterans would encourage social welfare advocates, who he felt were seeking to demolish any remaining "barriers of self-reliance and self-support in our people."[3] Despite Hoover's opposition, the House passed the measure and sent it to the Senate for a vote.

To influence the ongoing congressional debate, thousands of veterans journeyed to Washington from all over the country during the spring and early summer of 1932. Unemployed cannery worker Walter W. Waters and a small group of Oregon veterans began the movement and initiated what would become the national Bonus March.

Press coverage of the Oregonians' plight soon brought like-minded, unemployed veterans to Washington from all over the country, usually traveling free of charge, thanks to sympathetic freight and passenger train operators. By mid-July, estimates numbered the force at 20,000 men.[4]

Some men and their families camped in hastily erected shanties and lean-tos in abandoned and partially demolished buildings on Pennsylvania Avenue. The largest "town"—Camp Marks—was just across the Anacostia River. The camp's name honored the kindly commander of the neighboring 11th Precinct, Police Captain S.J. Marks.

The Participants

Of the four major groups participating in the Bonus March, the Bonus Expeditionary Force (BEF) was the largest. The BEF, led by Waters, was a disciplined, organized, law-abiding group of veterans assembled from across the country. The BEF kept order within its ranks and even published a weekly newspaper, *The BEF News*. BEF members had not traveled to Washington to break laws or foment unrest; they simply wanted to petition Congress for relief from the Depression's effects.

Although largely noncommunist, the BEF did have a few Communist Party members. Their small but vocal presence eventually created a negative image and heavily influenced Hoover's and Army Chief of Staff Douglas MacArthur's opinions. In late June, after the Senate defeated Patman's Bonus Bill, Waters added to the BEF's negative image when he openly hinted at creating a militant socialist force called the "Khaki Shirts" to fight against the "sordid scheme of special privilege."[5]

MacArthur was suspicious of the BEF's motives. His suspicion came from his visceral hatred of communism, which had been bolstered by a series of incidents initiated by radical groups dating to the 1919-1920 Red Scare. Although the violence that rocked America during the Red Scare had subsided with time and growing economic prosperity, the Depression reawakened the fear of radical movements. Several radical outbursts in Washington and elsewhere in the seven months before the Bonus March only exacerbated MacArthur's skepticism.

To confirm his suspicions, MacArthur cabled the nine Corps Area Commanders and asked for reports on BEF communist elements. The commanders concluded that no evidence pointed toward a Red-controlled uprising. Major General Malin Craig, who succeeded MacArthur as Chief of Staff, replied that marchers from his area were fervent anticommunists.

MacArthur ardently believed that the Bonus March was a communist vehicle for inciting revolution. He reinforced Washington's Army garrison, began special antiriot training at nearby Fort Myer, ordered tanks lubricated and brought several experimental vehicles from Aberdeen Proving Ground. He also carefully reviewed a revised version of the Army's "White Plan" for quelling civil disturbances in Washington. The White Plan's key to restoring order was using tear gas to disrupt rioters and, as MacArthur hinted, possibly "more drastic action" against "the Reds" after "giving an opportunity to the noncommunist veterans to disperse."[6]

Hoover was growing increasingly despondent over his inability to end the Depression. However, he vehemently opposed handouts for the Bonus Marchers. The frequent disturbances forced him into seclusion. He made fewer public appearances, increased the number of White House guards and padlocked the White House gates.

In summer 1932, amid the growing suffering, suspicion and insecurity that enveloped Washington, Police Superintendent for the District of Columbia Pelham Glassford stood out in his attempts to alleviate the BEF's distress and poverty. Glassford was an intelligent, charming man and had been a World War I brigadier. He empathized with the veterans' plight, believing they should be treated with compassion but encouraged to return home. To that end, Glassford solicited donations of shelter, food, clothing and money on the veterans' behalf. For a time, he even managed the BEF's finances and gave them $1,000 for food and supplies.

As the primary intermediary between the BEF and the administration, Glassford tried to make the best of a bad situation and diffuse the Bonus Marchers without resorting to force.[7] But, Glassford's superiors, the DC Commissioners, saw him as being "soft" on the Bonus Marchers. At the peak of the crisis, they accused him of improperly handling the eviction of veterans from the abandoned buildings on Pennsylvania Avenue.

An Ignominious End

After a series of meetings on 27 July 1932 between Hoover, Secretary of War Patrick Hurley, MacArthur, Mitchell, and the DC Commissioners, the BEF was given an ultimatum: vacate the abandoned buildings. Hoover decided to proceed with the planned demolition of the buildings on Pennsylvania Avenue and ordered the DC Commissioners to have Glassford and the police evict any veterans from the structures by the next morning.[8]

Initially, the eviction went smoothly. Around noon, however, BEF members gathered on Pennsylvania Avenue where the evictions were taking place. In response, Glassford called for all the policemen

in Washington to report to the scene. By early afternoon the confrontation turned bloody as veterans began hurling bricks at police. Glassford ordered the DC Commissioners to stop the evictions for the day to allow tempers to cool.

Glassford told the commissioners that the Army might be needed, should the eviction continue. The commissioners interpreted Glassford's warning as an admission that the police could not handle the situation and that afternoon appealed to Hoover for federal troops. Hoover agreed and called MacArthur. After receiving what amounted to a presidential warning order, MacArthur ordered an Army contingent to assemble at the Ellipse near the White House. As the conflict worsened, a policeman accidentally shot and mortally wounded a veteran while trying to evict him. At the War Department, the Secretary of War ordered MacArthur to "proceed immediately to the scene of disorder. . . . Surround the affected area and clear it without delay. . . . Use all humanity consistent with the due execution of this order."[9]

By late afternoon, MacArthur led the Army contingent—one infantry battalion, one horse cavalry squadron, and one tank platoon—down Pennsylvania Avenue. Using great quantities of tear gas to flush out the veterans and horse cavalry to intimidate them, the Army quickly cleared the area and began to herd the veterans toward the Anacostia River and Camp Marks. Around dusk, MacArthur stopped to rest and feed the soldiers. He ordered Glassford to warn any veterans remaining at Camp Marks that the Army was approaching and to evacuate the area. As the troops neared Anacostia Bridge, Hurley twice sent messengers to MacArthur, telling him that Hoover did not want the veterans pursued across the Anacostia River. Major Dwight D. Eisenhower, MacArthur's aide, later noted that MacArthur heard neither message. Eisenhower wrote that MacArthur claimed to be "too busy and did not want either himself or his staff bothered by people coming down and

pretending to bring orders."[10]

Near midnight, as veterans began to set fire to the tents they had borrowed from the National Guard, troops crossed the river and entered Camp Marks. About two thousand stragglers assembled at the camp's south end, but tear gas grenades forced them to disperse. Two hours after midnight, the camp was quiet and troops bivouacked for the night. Guards were posted and Coast Artillery searchlights swept back and forth to illuminate the area.[11] MacArthur's apparent success must have made Hoover forget his earlier instructions because his staff informed reporters that "the "President [was] pleased."[12]

The Aftermath

Immediate reaction to the Bonus Marcher's eviction was overwhelmingly supportive. Several newspapers headlined stories endorsing the eviction, calling the marchers "a riff-raff mob," the "assault on police unjustified" and the "President fully justified."[13] Officially, Hoover justified the use of federal troops as necessary to "put an end to [the] rioting and defiance of civil authority [and] restore order."[14] Senior Hoover administration members claimed the BEF consisted of "criminal, communist and nonveteran elements" and was a "polyglot mob of tramps and hoodlums, with a generous sprinkling of communist agitators."[15] MacArthur claimed the Bonus Marchers were a "bad-looking mob . . . animated by the essence of revolution."[16]

In reality, hardly any criminals or communists were among the BEF. Ninety-four percent were bonafide veterans and few had ever committed a crime of consequence. They were neither communists animated by revolution nor fascists looking to overthrow the government. They were simply average, hard-luck Americans exercising their constitutional right to assemble and petition the government. Once these facts came to light, public support for the eviction declined precipitously. *The Washington News* received hundreds of letters, 90 percent of which

criticized the administration's handling of the BEF.[17]

In addition to criticizing the Hoover Administration, newspaper editorials criticized both the Army and its chief of staff. Incomplete reporting led to charges that the Army had used excessive force. Unlike the administration, however, the Army was largely free from blame. Although a few marchers were injured and one infant died from inhaling tear gas, the Army acted with immense restraint. The Army employed tanks and horse cavalry to intimidate the marchers and opened 2,000 tear gas canisters to disperse crowds, but troops did not fire a single shot. Despite the Army's care to "use all humanity consistent" with its mission, stories and pictures in the press highlighted the eviction's impact on the veterans and their families and played on public sympathy for the homeless and unemployed.

Criticism of MacArthur was much more accurate. He had seriously misjudged the BEF's nature and overstepped his authority in ordering the Army across the Anacostia Bridge. The combined weight of these criticisms led to a decline in public trust and the Army's popular image.

The Forgotten Stain

Today the Bonus March is largely a forgotten incident. Using the Army to quell civil disturbances runs counter to traditional notions about the use of military force. This attitude continues despite both the Army's long history of such roles and the mission's recent codification in the Army's operations other than war (OOTW) doctrine.[18] During the Bonus March the Army turned on its own unemployed veterans who had served the country with honor and were only exercising their rights as Americans. Major George S. Patton, executive officer for the participating cavalry squadron, evicted the man who had saved his life in France during World War I.[19]

MacArthur's conduct evokes images of the Army acting beyond the bounds of its duly constituted authority. While this controversy

falls far short of threatening US civil-military relations, it nevertheless reminds us of MacArthur's more substantial and chastening conflict with his civilian president during the Korean War.[20] Even MacArthur's biographer, D. Clayton James, characterized the chief of staff's efforts during the Bonus March as the product of "overzealous determination and reckless impulsiveness."[21]

The Bonus March as OOTW

An analysis of the Bonus March using the OOTW principles in FM 100-5, *Operations*, leads to the following conclusions about what the Army did well and where it performed poorly.[22]

Unity of effort. Federal troops and Washington police worked well together. Once Hoover ordered troops to the scene, Glassford conferred frequently with MacArthur to avoid duplication of effort. The police and the Army divided tactical missions and supported each other throughout the operation.

Security. The Army maintained tight security throughout the eviction and never allowed the veterans to acquire an unexpected advantage. Despite the likelihood of injury during the operation, only 12 soldiers were wounded—four by bricks and eight by their own tear gas.

Restraint. The Army exercised remarkable restraint in evicting the Bonus Marchers. The troops adhered to the rules of engagement and employed weapons and tactics well-suited for crowd control and civil disturbances.

Objective. Hoover did not clearly define what he wanted MacArthur to do, an error MacArthur used to full advantage. His actions in crossing the Anacostia Bridge without clear orders to do so reflect the nagging problem contemporary commanders face in defining end states and operational parameters in OOTW. MacArthur's predilection to paint the BEF as a communist-inspired vehicle for inciting revolution combined with the ambiguous guidance he received from Hurley to create a version of "mission creep."

Hurley's "area" consisted of the abandoned buildings on Pennsylvania Avenue. MacArthur's "area" was the nation's capital. Ironically, the mission creep did not occur because civilian leaders altered their objectives in the middle of the operation; it resulted from MacArthur's selective interpretation of ambiguous mission orders to suit his preconceived ideas.

Legitimacy. Although no one questioned Hoover's right to govern the nation or maintain order in the capital, his bungling of the Bonus March cost his administration and the Army popular legitimacy. The administration, abetted by rabid anti-communists, seriously misjudged the BEF's intent and ignored Glassford's pleas for firm but compassionate treatment. Panic-stricken and gripped by the fear of a Communist revolution, the administration had become detached from the Great Depression's pandemic poverty and suffering. Because Hoover's administration lost touch with the common man's plight, its actions were inappropriate for the situation. As the agent charged with carrying out Hoover's orders, the Army also fell victim to the backlash.

Lessons Learned

Perhaps the most important lesson of the Bonus March is the need to understand how using force in civil disturbances can affect popular attitudes toward the federal government and the military. Military leaders must have clearly defined, geographically delineated, decisive and attainable objectives before they begin an operation to restore public order. With these objectives in hand, commanders must then determine operational parameters. Without such specificity, mission creep can occur and increase the potential for a loss of popular and political legitimacy.

In an era of uncertainty about the military's future role, the Army can ill-afford to perform poorly in OOTW and fritter away the trust it currently enjoys. The Army must understand its history, monitor popular perceptions of military force and ensure

that today's force is properly trained, equipped and commanded. Readiness includes the ability to support civil authorities in times of crisis without sacrificing the American people's respect. *MR*

NOTES

1. D. Clayton James, *The Years of MacArthur*, vol 1, *1880-1941*, (Boston: Houghton Mifflin, 1970), 384.
2. David A. Shannon, *Between the Wars: America, 1919-1941* (Boston: Houghton Mifflin, 1965), 110; US Department of Commerce, *Statistical Abstract of the United States, 1933* (Washington, DC: Government Printing Office, 1933).
3. Herbert Hoover, veto message quoted in Roger Daniels, *The Bonus March: An Episode in the Great Depression* (Westport, CT: Greenwood Publishing, 1971), 46.
4. This number represents the total number of veterans, wives and children in Washington in July 1932.
5. James, 393.
6. James, 391-92.
7. Daniels, 87-122; James, 389.
8. James, 397; Daniels, 296. A copy of Patrick Hurley's order was also reprinted in *The New York Times*, 29 July 1932.
9. Dwight D. Eisenhower, *At Ease: Stories I Tell to Friends* (Garden City, NJ: Doubleday, 1967) retold in James, 401.
10. Daniels, 157-81; James, 395-405; Douglas MacArthur, "Report of the Chief of Staff to the Secretary of War on the Employment of Federal Troops in Civil Disturbance in the District of Columbia July 29-30, 1932," in Daniels, 291-307.
12. James, 403.
13. See for example, *The New York Times*, 30 July 1932, A4.
14. Hoover, "Text of Hoover's Statement on Calling for Troops to Put an End to Bonus Rioting in the Capital," *The New York Times*, 29 July 1932, Al.
15. See also James, 404-06.
16. Ibid., 407.
17. Ibid.
18. For a concise history of the use of the Army to end civil disorder, see Bennett Milton Rich, *The Presidents and Civil Disorder* (Washington, DC: The Brookings Institution, 1941).
19. "Cavalry Major Evicts Veteran Who Saved His Life in Battle," *The New York Times*, 30 July 1932, A4.
20. MacArthur's relief by President Harry S. Truman represents an even larger stain on the Army's collective image than the Bonus March. This incident has recently been used by historians Russell Weigley and Richard Kohn to criticize the actions of senior military officers with respect to the Clinton Administration. For serving Army officers sworn to uphold the Constitution of the United States, the reference to MacArthur was an unjustified indictment and has been particularly injurious to their professional pride. See Russell F. Weigley, "The American Military and the Principle of Civilian Control from McClellan to Powell," *The Journal of Military History*, vol. 57, no. 5 (Special Issue) (October 1993), 27-58; and Richard H. Kohn, "Out of Control: The Crisis in Civil-Military Relations," *The National Interest* (Spring 1994), 3-17.
21. Ibid., 409.
22. All of the OOTW principles outlined in FM 100-5, *Operations*, (Washington, DC: Government Printing Office) are evaluated except "perseverance." The incident was over so quickly neither the Army's nor the people's will were tested. The people exhibited their frustration with the continued national Depression when they elected Franklin D. Roosevelt president in November 1932.

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Battle Command: Bradley and Ridgway in the Battle of the Bulge

by Lieutenant Colonel Thomas M. Jordan, US Army

In recognizing that the operational level of war provides the vital linkage between national and theater strategic direction and the tactical employment of forces, current Army doctrine identifies several key planning tasks for operational-level commanders:

- Shape the military environment.
- Set the conditions for decisive results or victory.
- Identify the military operations that will achieve the desired military end state.
- Support the campaign with operational intents, concepts and objectives.
- Respond to continually changing conditions.[1]

These tasks constitute "the art of motivating and directing soldiers and their leaders into action to accomplish missions."[2]

Aside from planning responsibilities, how do corps or higher commanders affect the tactical level? What role do they play, and how much difference do they make in tactical battles?

In late 1944, US Army General Omar Bradley, commander of the largest Army Group in the European Theater, noticed a weakening of the vaunted German war machine. US Army General Dwight D. Eisenhower's broad-front ground and strategic air campaign was working. Despite devastating Allied losses during the bitter Huertgen Forest fighting, Bradley and other senior commanders believed the Germans were reeling from the repeated Allied Russian hammering. In losing the equivalent manpower of five divisions a week, German defenses were stretched to the breaking point. By late fall, the intelligence community and Bradley, Eisenhower and English General Bernard Montgomery believed the Germans lacked the capabilities to conduct anything beyond local counterattacks. In the Allies' view, the German breaking point was imminent.[3]

As winter approached, Bradley agreed with Eisenhower's decision to maintain pressure on Adolph Hitler's beleaguered *Wehrmacht*.[4] However, the iron laws of logistics combined with limited infantry replacements forced Bradley's planners to economize in order to build up sufficient combat power to sustain an offensive.[5] With Eisenhower's concurrence, Bradley made the "calculated risk" to use the 88-mile Ardennes Forest sector as a reconstitution and training ground for First Army's tired, green divisions.[6]

Bradley relied heavily on British ULTRA intelligence intercepts to confirm his predisposed attitude regarding the German offensive threat. He believed the combat power he would gain through the disposition of forces in the Ardennes was worth the risk.[7] Reasoning that nothing of strategic value lay in the region, Bradley convinced US Army Lieutenant General Troy Middleton, VIII Corps commander, that even if the Germans did attack, the Allies' mobility advantage would enable a rapid defeat of any penetration.[8]

At a 7 December 1944 strategic planning conference with Eisenhower in Maastricht, Netherlands, Bradley received permission to conduct limited offensives using the First and Third Armies.[9] Designed to set the conditions for a major offensive aimed at the heart of Germany by early 1945, these operations fulfilled Eisenhower's desire to destroy the German Army and bring the war to an end.[10]

In early December, Lieutenant General Matthew Ridgway, XVIII Airborne Corps commander, was not thinking about a possible German offensive through the Ardennes. With his headquarters split between England and France, Ridgway's first concern was to refit and train soldiers to replace the high number of casualties his two crack divisions, the 82d and 101st, had sustained in the ill-fated Arnhem Campaign.[11]

The Assault

On 16 December 1944, the German Army for the third time in 30 years launched a major ground assault through the Ardennes' forested trails. Focusing on Antwerp as his strategic objective, Hitler planned to encircle and destroy Allied forces north of the line of Bastogne-Brussels and Antwerp.[12] Beginning with a thunderous 30-minute artillery preparation along the attack zone, three German armies began the attack against unsuspecting Allied forces.[13]

Although initially shocked, US troops fought back stubbornly to check the massive German assault. All along the front, German units failed to meet their initial assault objectives and time lines. Major exceptions were multiple penetrations along the US VIII Corps front, the most serious occurring between V and VIII Corps in the Losheim Gap.[14]

Bradley was slow to grasp the enormity of the German attack. For almost a day, he believed that German Field Marshal Karl Rudolf Gerd von Rundstedt, the senior German commander in the West, had merely launched a spoiling attack to throw off US Army General George S. Patton's offensive in the Saar region.[15] Bradley later commented: "The other fellow knows that if he's to hold out much longer he must lighten the pressure that Patton has built up against him in the Saar. If by coming through the Ardennes he can force us to pull Patton's troops out of the Saar and throw them against his counteroffensive, he will get what he's after. And that's just a

LTG Matthew B. Ridgway and MG James M. Gavin confer near Werbomont, Belgium.

little more time."[16]

The Defense

Eisenhower did not agree with Bradley's assessment.[17] After a tense night sifting through confusing situation reports, the two officers decided on the immediate defensive strategy—hold the north and south shoulders of the penetration, block the rush west by holding the road hubs of St. Vith and Bastogne and prepare strong defenses along the Meuse River.[18]

Eisenhower instructed Bradley to send the 10th Armored Division from the south and the 7th Armored Division from the north toward the flanks of the attack.[19] Bradley was to alert his commanders to free up any reserves for use in the Ardennes area. Finally, Eisenhower decided to commit the Supreme Headquarters Allied Expeditionary Force (SHAEF) reserve, Ridgway's XVIII Airborne Corps, minus the 17th Airborne Division, to bolster the critical points at St. Vith and Bastogne.[20]

By dawn the next morning Ridgway was on his way to link up with the 82d and 101st, establishing his forward command post at Werbomont. He coordinated with US Army Major General James Gavin, commander of the 82d Airborne Division, met with US Army General Courtney Hodges, commander of First Army, then began directing units to the front lines.[21]

Ridgway's actions were primarily limited to moving troops to penetration points, sizing up the tactical situation and establishing a cohesive defense. By 20 December, his force had grown considerably. Elements included the 30th Infantry Division, major elements of the 3d Armored Division and all the forces in St. Vith, including remnants of several other divisions.[22]

Command Styles

Although he was a corps commander, Ridgway believed a leader's place on the battlefield was forward. Unconcerned that his XVIII Airborne Corps headquarters staff had never before been in combat, Ridgway immediately delegated many duties to his chief of staff and spent most of his time moving around the battlefield. He believed being forward with the troops enabled unit commanders to know him and his thinking. He felt this helped him listen to problems, sense what the troops were up against and interact with small-unit leaders.[23] Finally, and perhaps more significant, he felt he could better assess his subordinate leaders' actions while under extreme conditions.

While Ridgway was involved from the onset in shaping the battle, Bradley took a standoff approach. At a critical planning conference at Verdun on 19 December, he "mostly observed . . . saying little and offering nothing."[24] His stubborn refusal to relocate his forward command post from Luxembourg to a more central location limited him to telephone communication. Despite the situation's seriousness, he did not visit front-line units and commanders.[25]

Bradley's puzzling behavior did not go unnoticed by Eisenhower. With German penetrations threatening to sever key communication nodes, Eisenhower and the SHAEF staff began to have reservations about Bradley's capacity to command and control the actions of the First, Third and Ninth Armies.[26] A day after the Verdun conference, Eisenhower acted on his misgivings. He counterattacked with the Third Army while continuing the defense. He gave Montgomery command of the First and Ninth Armies.[27] Bradley was reduced to being an interested spectator at the battle's most critical time.[28] Patton's Third Army required little assistance from Bradley, and Montgomery and the 12th Army Group staff were responsible for coordinating the defense against the German attack.[29]

After deploying the 82d Division, the newly attached 30th Infantry Division and major elements of the 3d Armored Division, by the evening of 20 December, Ridgway was able to establish a thin but viable defense along the northern shoulder and in front of the Sixth Panzer Army as it aimed for the Meuse River.[30] With their sector spanning from 25 to 85 miles, Ridgway's forces engaged three German Corps.[31]

At St. Vith, the situation was worsening as thrown-together, outnumbered US forces desperately battled the Germans. By 21-22 December, the situation in St. Vith had become critical.[32] Despite the troops'

gallant efforts, the Germans were prevailing. Concluding that a continued defense was hopeless and realizing the difficulty of executing a withdrawal under pressure, Ridgway made his way forward for a personal assessment.[33]

He was not pleased. Major General Alan Jones, commander of the 106th Division, was located to the rear and largely had relinquished his role. Ridgway immediately relieved Jones and put the troops under the 7th Armored Division's command.[34]

Over the next few days, Ridgway continued to deal with critical situations through up-front leadership. Ridgway's forces repeatedly repulsed the attackers despite their advantages in numbers of troops and superior equipment. On Christmas Day, even as he reassured Montgomery and Hodges his lines would hold, the Germans achieved a penetration.[35] Ridgway quickly convinced the Army commander to release his reserve. Within 24 hours he counterattacked and regained the lost ground.[36] By 26 December, Ridgway's efforts paid off. The German attack in his sector came to a halt.

Lessons Learned

What can we learn about the operational commander's impact at the tactical level? As the 12th Army Group commander of 31 divisions, Bradley was in a far better position to influence operations and maneuver than was Ridgway, who was a new corps commander trying to refit and train a force in theater reserve. However, Bradley played a minor role and actually contributed little to the battle's outcome; Ridgway contributed a great deal.

In their book *Military Misfortunes: The Anatomy of Failure in War*, Eliot Cohen and John Gooch identify three basic sorts of military-operations failures: failure to anticipate, failure to learn and failure to adapt.[37] Failure to anticipate is the inability to foresee and take appropriate measures to deal with a problem. Failure to learn suggests an inability to gain understanding and experience. Failure to adapt is the

inability to react or cope with unfolding events. Given the far-reaching impact of mistakes at the operational level, one can easily see how consequences can be amplified.

Bradley's 12th Army Group's inability to correctly assess German preparations, intentions and capabilities before the Ardennes offensive illustrates a failure to anticipate.[38] While Bradley was not the only senior commander surprised by the strength of the German attack, he was clueless as to the enemy's true intentions. In a brutally candid personal assessment, Bradley later wrote: "In the face of this astonishing German buildup, I had greatly underestimated the enemy's offensive capabilities. . . . We could not believe he possessed sufficient resources for a strategic offensive."[39]

Bradley's failure to anticipate German intentions undermined his decision-making apparatus. This led to his risky disposition of forces in the Ardennes, contributed to his reluctance to form an uncommitted Army Group reserve and was why he did not publish and distribute contingency plans.[40] Convinced that the Ardennes had no strategic value, Bradley believed the Germans would not use the route as an operational avenue of approach. He also believed a major offensive would exceed German capabilities. By design, he limited his own flexibility.

In retrospect, Bradley was more right than wrong in regard to German capabilities. However, his decision to take risks without developing adequate contingency plans tremendously strained the rickety scaffolding of his decision-making structure and set conditions the Germans could exploit.

Bradley was also slow to adapt. Once the attack began, he failed to recognize the signs of a major offensive. Had Eisenhower not committed the 7th and 10th Armored Divisions, the defenders of St. Vith or Bastogne hardly could have contained the German push.

As the battle progressed, Bradley's influence increasingly waned. The record is silent about his contributions at the critical 19 December

Verdun meeting. It seems he relied on Patton and Eisenhower to determine the Third Army's role. Following the similar pattern of battle command he demonstrated in the disastrous Huertgen Campaign, Bradley did not visit his commanders or view the fighting from a more forward location. However peculiar it might seem in light of his otherwise impeccable military credentials, Bradley's battle command before and during the Battle of the Bulge is wanting. The Bulge was not Bradley's finest hour.[41]

In contrast, Ridgway's practice of battle command helped him play a significant role during the bulge. He organized what became an extremely successful defense against the German Sixth Panzer Army's main effort. Throughout the XVIII Airborne Corps sector, Ridgway's tough command style and forward presence helped stiffen the resolve of unsteady troops and commanders. His uncompromising, aggressive defense not only prevented a rout, it also provided the fulcrum for Patton's counterattack and the following counteroffensive. In retrospect, Eisenhower's decision to deploy his strategic reserve early in the struggle was correct. One can only wonder what the outcome would have been had Ridgway and the soldiers of the XVIII Airborne Corps not been committed to the struggle.

While campaigns are primarily won or lost at the tactical level, operational-level leaders' plans and decisions create the conditions for tactical success or failure. Operational commanders exert considerable influence on the moral domain of combat through personal example, leadership and more significant, by making correct decisions based on a realistic view of the battlefield.

Bradley's acceptance of projected enemy capabilities and his failure to develop flexible reserves and contingency plans established conditions for disaster. His reluctance to adapt could have resulted in collapse had Eisenhower not stepped in. By overruling Bradley's desire to continue with the planned offensive, Eisenhower narrowly averted a debacle. He sent two armored divisions to

shore up the penetration and committed Ridgway's XVIII Airborne Corps to the theater. Once the defense was established, Eisenhower counterattacked with Patton's Third Army. Ridgway's personal influence and tactical skill helped galvanize US response and stiffened a disintegrating situation. Although the overall victory in the Bulge was because of the fighting spirit of thousands of gallant soldiers, clearly Eisenhower and Ridgway played their parts superbly.

Implications

This study suggests at least three implications for leaders. Although emerging technologies hold great promise, they cannot completely lift the fog of war to reveal everything we need to know about a potential enemy. Despite the Allies' overwhelming advantage from ULTRA intelligence, the Germans' ability to limit electronic signal traffic and their excellent deception effort proved to be low-tech combat multipliers that helped them conduct successfully a major attack that many believed exceeded their capabilities.

Despite technological improvements, strategic surprise is and always will be possible. Future antagonists will find countermeasures and asymmetric means to circumvent conventional and technological superiority.[42] Skillful staff planning helped the Germans conduct an offensive during a weather pattern that grounded the US forces' tremendous air capability. By keenly studying the Allied order of battle and force dispositions, the Germans selected the weakest point along a front hundreds of miles long. Failing to expect no less from future opponents invites disaster.

The allure of emerging technology increasingly entices commanders at all levels to remain in headquarters that offer sophisticated intelligence and communications links. Over time, this practice could degrade the time-honored forward battle command style Ridgway exemplified. We ignore this rudimentary lesson at our own peril.[43]

Commanders who tether themselves to a command post run the risk of developing a distorted view of the battlefield and of disrupting the dialogue and interaction that allow subordinate commanders' perspectives to surface.[44] This loss could lead senior commanders to resurrect the dangerous practice of bypassing echelons of command and issuing instructions directly to subordinates several echelons below. While the convenience of a rearward command post might offer a commander greater communication capabilities, it precludes his capacity to influence soldiers and officers in the most important aspect of all—the moral domain.

While technology might provide a clearer battle picture than ever before, it cannot convey a soldier's feelings of battle. Future leaders will be well served to recall Patton's admonishment that "wars may be fought with weapons, but they are won by men. . . . It is the spirit of the men who follow and the man who leads that gains the victory."[45] As long as warfare continues, effective battle command must include a perspective from the front. *MR*

NOTES

1. See US Army Field Manual (FM) Army, 100-7, *Decisive Force: The Army in Theater Operations* (Washington DC: US Government Printing Office (GPO), May 1995), chapters 1-4, for a discussion of operational-level planning responsibilities.
2. FM 100-5, *Operations* (Washington, DC: GPO, June 1993), 2-14.
3. Omar N. Bradley and Clay Blair, *A General's Life: An Autobiography* (New York: Simon and Schuster, 1983), 349-53; see also Omar N. Bradley, *A Soldier's Story* (New York: Holt, Rinehart and Winston, 1951), 434; Hugh M. Cole, *The Ardennes: Battle of the Bulge* (Washington, DC: Office of the Chief of Military History, 1993), 57-63; Assistant Chief of Staff BG Edwin Sibert, G2 Headquarters, XII Army Group, *Weekly Intelligence Summary N18*, 12 December 1944, US Army Military History Institute, Carlisle Barracks, PA.
4. Bradley, 434; see also Dwight D. Eisenhower, *Crusade in Europe* (New York: Doubleday, 1948), 340.
5. Bradley, 447.
6. Stephen E. Ambrose, *The Supreme Commander: The War Years of General Dwight D. Eisenhower* (Garden City, NY: Doubleday, 1970), 552; Bradley, 437-38.
7. Bradley and Blair, 352-53; see also F.W. Winterbotham, *The ULTRA Secret* (New York: Harper and Row, 1974), 178-79; Dwight D. Eisenhower, 340-41. To Eisenhower's credit, he took responsibility for maintaining only divisions on the Ardennes front in spite of the risk of a large German penetration.
8. Bradley, 454-55.
9. Cole, 53.
10. Dwight D. Eisenhower, 338; Bradley, 434.
11. Matthew B. Ridgway, *Soldier: The Memoirs of Matthew B. Ridgway* (New York: Harper, 1956), 111.
12. Cole, 27-28.
13. Danny S. Parker, *Battle of the Bulge: Hitler's Ardennes Offensive, 1944-1945* (Conshohocken, PA: Combined Books, 1991), 67-82.
14. Russell F. Weigley, *Eisenhower's Lieutenants: The Campaign of France and Germany, 1944-1945* (Bloomington: IN: Indiana University Press, 1981), 457.
15. Bradley, 455-56.
16. Ibid., 455.
17. John S.D. Eisenhower, *The Bitter Woods* (New

York: Putnam, 1969), 215.
18. Bradley, 357.
19. Ambrose, 556.
20. Ridgway, 112; Dwight D. Eisenhower, 345-49.
21. Clay Blair, *Ridgway's Paratroopers: The American Airborne in World War II* (Garden City, NY: Dial Press, 1985), 432-33; Weigley, 481.
22. Blair, 435-41.
23. Ridgway, 118-19.
24. David Eisenhower, *Eisenhower at War, 1943-1945* (New York: Vintage Books, 1987), 569-70.
25. Bradley, 357; see also J.D. Morelock, *Generals of the Ardennes: American Leadership in the Battle of the Bulge* (Washington, DC: GPO, 1994), 128-29; Carlo D'Este, *Patton: A Genius for War* (New York: Harper Collins, 1995), 682. Before losing command, Bradley had not visited either of his commanders. Patton visited seven divisions and regrouped an army.
26. Dwight D. Eisenhower, 355; Weigley, 503.
27. Alfred D. Chandler Jr., ed, *The Papers of Dwight David Eisenhower,* vol IV: *The War Years* (Baltimore, MD: John Hopkins Press, 1970), 2,371-72.
28. D'Este, 683.
29. See Martin Blumenson, ed, *The Patton Papers, vol 2: 1949-1945* (Boston, MA: Houghton Mifflin, 1972-74), 600-08.
30. Blair, 441.
31. Cole, 400-01.
32. Cole, 371.
33. Ridgway, 119.
34. Ridgway, 120-21.
35. Weigley, 532-33.
36. Blair, 472-73.
37. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Free Press, 1990), 26.
38. Sibert, N9.
39. Bradley, 459-60.
40. Bradley, 464. Bradley viewed the Germans as a badly beaten enemy and believed he could not conscientiously withhold in reserve divisions better used on the offensive.
41. See Morelock, 128-29; Chandler, 2,238. In a 14 January 1945 cable to General George C. Marshall, Eisenhower again recommended Bradley for promotion and called his leadership through the Ardennes affair "admirable."
42. See Robert J. Bunker, "Five-Dimensional (Cyber) Warfighting: Can the Army After Next be Defeated Through Complex Concepts and Technologies?" Strategic Studies Institute, US Army War College, Carlisle Barracks, PA, 1998.
43. See Stephen E. Ambrose, *Citizen Soldiers: The U.S. Army from the Normandy Beaches to the Surrender of Germany, June 7, 1944-May 7, 1945* (New York: Simon & Schuster, 1997), 165-67. According to a senior British officer, a growing problem in the US Army was that not even battalion commanders went to the front, which resulted in senior officers and their staffs not knowing what they were ordering their companies to do.
44. See Tom Clancy and General Frederick Franks, *Into the Storm* (New York: G.P. Putnam, 1997), 293-95, for an example of the contrasting views between a senior commander tethered to a rear command post and one who operates forward; see also Norman Schwarzkopf with Peter Petre, *It Doesn't Take A Hero* (New York: Bantam Books, 1992), 455-63; Franks, "Battle Command: A Commander's Perspective," *Military Review,* May-June 1996, 4-25. Franks indicates that in the Gulf War he received 20 percent of his information during the battle from command post input, 50 percent from being up front on the battlefield and through his commanders' assessments and 30 percent from embedded memory and training.
45. Blumenson.

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The Marshall Mission:
A Peacekeeping Mission that Failed
by Andrew Birtle

Peacekeeping has recently become a central role for the US Army, but it is not a new mission. Fifty years ago, the Army conducted a truce-enforcement effort in China and still feels repercussions from that failed effort. The Marshall Mission story illustrates the challenges and perils inherent in peacekeeping operations.

China

China was a broken nation at the end of World War II. Its long travail had begun in 1927 when Chiang Kai-shek and the Nationalist Kuomintang (KMT) party launched a campaign to exterminate Mao Zedong's Chinese Communist Party (CCP). Chiang gained the upper hand in the long, bitter conflict, but the 1937 Japanese invasion compelled him to join Mao in an uneasy alliance. For seven years, Chiang and Mao fought the Japanese—and occasionally each other—mindful that some day they would again square off in the struggle to decide China's destiny. That day came on 2 September 1945, when Japan formally surrendered.

Japan's withdrawal created a vacuum in northern and eastern China. Chiang and Mao rushed to position their forces for the inevitable struggle. Mao's northwestern-based forces were better situated to exploit Japan's withdrawal than were Chiang's armies in southcentral China. Moreover, the CCP had operated guerrilla forces behind Japanese lines for years. As Chiang sent his armies northward, CCP guerrillas delayed and harassed them.

The United States did what it could to aid Chiang in the "great race," partly because it mistrusted Mao and partly because it wished to forestall the Soviet Union, which had occupied Manchuria in the closing days of the war. Supreme Commander of the Allied Powers General Douglas MacArthur designated the Nationalists as the Allies' sole agent for accepting the surrender of Japanese forces in China. He supplied US air and naval forces to transport nearly 500,000 Chinese government soldiers to key points in northern and eastern China. In October, the United States deployed approximately 50,000 Marines of the III Amphibious Corps to northern China. Ostensibly undertaken to facilitate the repatriation of Japanese personnel, in reality the deployment was designed to prevent the Soviets or the CCP from occupying key population, transportation and mining centers in northern China before the Nationalists could reach them.

The United States genuinely hoped for peaceful resolution of China's internal strife. Although officially recognizing Chiang's government, the United States realized the regime's severe flaws. Under the KMT, China's government was oppressive, inefficient and corrupt. Many US officials sympathized, at least in principle, with the CCP's call for social, political and economic reform.

The United States desperately wanted a strong, united China to counterbalance Soviet influence in the Far East. A civil war, even if it resulted in a Nationalist victory, threatened to weaken the already battered China and invite Soviet encroachment. Consequently, rather than simply backing Chiang, US foreign policy worked toward China's peaceful reunification. The United States wanted Mao to lay down his arms and persuade Chiang to create a political environment in which all parties could compete through peaceful, democratic processes. To achieve this quixotic goal, US President Harry S. Truman sent recently retired US Army General George C. Marshall to broker peace.[1]

Beijing Executive Headquarters

After Marshall's arrival in China on 20 December 1945, negotiations began through the auspices of the Committee of Three, which consisted of Marshall, Chang Chunchiao (Nationalist) and Zhou Enlai (Communist). The most pressing issue before the Committee was to stop the fighting. On 10 January 1946, Marshall convinced the Chinese to cease hostilities, curtail troop movements and reopen all lines of communications, effective midnight, 13 January.

The Committee of Three assigned the job of implementing the accord to the Beijing Executive Headquarters. Staffed by a roughly equal number of US, KMT and CCP personnel, the headquarters was led by three commissioners—a Nationalist, a Communist and an US diplomat, Walter S. Robertson, who served as chairman. US Army Brigadier General Henry A. Byroade acted as headquarters' director of operations and conduit between the commissioners and a tripartite combined chiefs of staff. The combined chiefs supervised the work of several tripartite groups, which translated the Commissioners' directives into detailed programs before sending them to field teams for implementation.

The field teams had the difficult job of imposing the cease-fire, verifying compliance and investigating and adjudicating alleged violations. Each field team was headed by three officers: American, Nationalist and Communist—the American acting as chairman. The US member was usually a colonel or lieutenant colonel; Chinese representatives ranked from major to general. Each representative had his own interpreter, to ensure that nothing was lost—or added—in translation. The teams, which numbered between 10 and 15 people, included support personnel.[2]

The immediacy of the armistice date meant headquarters had to become operational virtually overnight. The Army moved quickly, and by the end of January the peacekeeping

apparatus was up and running, with a headquarters facility in Beijing and nearly a dozen truce-enforcement teams in the field.

The speed with which the organization was established had several unfortunate consequences. The Committee of Three left the details of how the peacekeeping process would work to the commissioners and their staffs to iron out. This meant headquarters had to implement the truce before all procedural matters had been finalized, raising the prospect that some unresolved issue might subsequently arise.

Another weakness was the type of people assigned to headquarters. Part of the original US Army contingent was drawn from demobilizing units in China, and some were unenthusiastic about their assignment. Others came fresh from wartime duties as advisors to Nationalist military units, which raised questions as to their impartiality. As the operation grew, Marshall procured additional personnel from the United States, expressing a preference for mature officers who could conduct delicate negotiations in an alien environment.

Whether or not they had previously served in China, most soldiers possessed little or no knowledge of Chinese language, culture, history or politics, nor had they received peacekeeping training. Accustomed to command, US soldier-diplomats had to learn the delicate art of negotiation while on the job. Byroade hoped the Americans would make up for what they lacked in diplomatic skills through hard work, goodwill and strong character. Although most Americans assigned to the peacekeeping effort behaved creditably, deficiencies in their training sometimes proved a handicap.

Most of the Chinese so mistrusted one another they had difficulty finding common ground. The situation was exacerbated by both factions' tendency to assign field-team officers to areas from where they had come. Unfortunately, this practice created teams filled with men who were political antagonists and blood enemies. Further, these officers were naturally loyal to former commanders whom they now had to judge.

Such sentiments strained the field teams' objectivity, especially when a local commander's interests diverged from those of the national party.

Significant as they were, these problems paled in comparison to the fundamental structural flaws of the peacekeeping apparatus. To promote cooperation and understanding between the two warring parties, the Committee of Three had agreed that everything was to be done on a tripartite basis. Every action was subject to negotiation at five separate levels, from the Committee of Three down to the truce teams in the field, and no measure could be undertaken without unanimous consent.

Such an arrangement would have been exceedingly cumbersome under the best of circumstances. Since neither side trusted the other nor was fully committed to a peaceful resolution, it was disastrous. Committees frequently deadlocked over the most trivial matters. Many issues passed up and down the hierarchy of committees without resolution, only to be abandoned. Nor did a decision by the Committee of Three or the commissioners resolve a matter, for at each subordinate level the Chinese tried to manipulate programs for their partisan benefit. Even in the rare event that everyone agreed on a particular course of action, Chinese field commanders sometimes ignored directives, either on their own authority or with their national leaders' secret approval. Without a central enforcement mechanism, such defiance went undisciplined, because each party was reluctant to sanction itself. Created on the assumption of mutual cooperation, the Executive Headquarters proved to be a perfect instrument for prevarication, obfuscation and delay.

Apparent Success

One of headquarters' first tasks was to decide where to base truce-enforcement teams. Typically, each side proposed sending teams to areas where it was weak, hoping to discourage its opponent from launching offensives there. Both factions opposed stationing observers in areas where they planned to

make future territorial gains. It was often difficult to find mutually agreeable locations, so a few teams were stationed in totally inconsequential areas. But, for the most part, teams ended up in areas of strategic importance to both sides.[3]

The teams left Beijing, preceded by US aircraft dropping fliers announcing the cease-fire. Having only rudimentary maps, some teams got lost; others found the towns to which they were assigned no longer existed. Living conditions were primitive; the teams' only links to the outside world were radios and periodic resupply by aircraft. The isolation placed great strains on US team leaders who, because of their partisan Chinese counterparts, often found themselves the only neutral persons in their assigned areas.

The scenes that greeted the teams did not inspire optimism. The Chinese were still fighting in some areas, either because local commanders had not received word of the truce or because they chose to ignore it. Frequently, offensives would have been launched in last-minute attempts to gain as much territory as possible before the truce went into effect.

Since the teams could not be everywhere, a few weeks of frantic shuttling and tedious negotiations preceded some semblance of a cease-fire. Still, by late February 1946, most serious fighting had ended, and some antagonists had even complied with headquarters' directives to withdraw. An uneasy peace ensued. Although both parties seemed willing to give the negotiations a chance, they also welcomed the truce as an opportunity to rest and refit. Commanders who seemed most pleased by the arrival of the field teams were usually the ones who used them as shields to mask their forces' redeployment to more strategic areas.

The test of Chinese intentions came in getting commanders who had seized territory after 13 January to relinquish their ill-gotten gains. This proved exceedingly difficult. Neither side was willing to concede an inch of territory without a fuss, and resolution usually came only after days of exhausting negotiation.

While truce-enforcement teams struggled to maintain the fragile peace, Marshall pressed ahead on the diplomatic front, persuading the Chinese to agree to several new initiatives. In the interest of restoring China's socioeconomic fabric, commanders were to "remove or destroy at once all mines, blockhouses, blockages, fortifications or their military works on and along . . . lines of communications which interfere with the operation of such lines."[4]

To ensure neither side gained undue advantage from the reconstruction, the Committee banned troop movements along restored routes unless specifically authorized by Executive Headquarters; it dispatched eight communications field teams to oversee restoration. Marshall also persuaded Mao to lift sieges of Nationalist-controlled cities. Finally, Marshall persuaded both parties to merge into a single Chinese Army. China's four million soldiers would be disarmed and demobilized—a major step toward restoring peace and economic prosperity. Soldiers remaining under arms were to be recast under US tutelage into an integrated force loyal to the national constitution rather than to any particular party or person. By mid-March, Marshall was so confident of success that he returned to the United States to consult with Truman about reconstruction aid for China.

Marshall's assessment was overly optimistic; his grand achievement—the cease-fire—was fitful at best, constantly marred by minor violations and intransigent behavior. His other achievements were equally illusory. The suspension of Communist blockades proved to be only temporary, and the reality of establishing a common national army quickly bogged down.

Partisan wrangling also derailed efforts to restore lines of communication. The Nationalists controlled most of China's railroads and transportation centers; therefore, any restoration of these vital arteries would disproportionately benefit them no matter how impartial Marshall's motives might have been. Realizing this disparity, the Communists undermined the agreement. When not actively harassing communications lines through guerrilla action, they dragged their feet in removing obstacles and raised endless questions over procedure. They demanded joint custody of railways that were the lifeline of the Nationalist Army, something Chiang naturally refused to do. Conversely, the Nationalists claimed that the Committee's order to destroy military installations along railroads did not apply to their many blockhouses because the blockhouses did not interfere with the operations of those lines, a proposition the CCP found equally preposterous. Consequently, headquarters made little headway in restoring China's communications system.

Clearly, Marshall had made no progress in resolving key political differences between the two parties. Until these core issues were resolved, peace could not be guaranteed. No sooner had Marshall left for Washington than his efforts began to unravel. The immediate catalyst for the disintegration was the Manchurian question.

Manchuria

When Marshall negotiated the cease-fire, the Soviets still controlled Manchuria, so the January accord did not specifically mention it. This oversight proved fatal. The United States assumed the cease-fire applied to all of China. However, the Communists insisted that Manchuria was distinct from China proper and therefore not covered by the January agreements. The Soviet withdrawal created an irresistible vacuum; both Chiang and Mao rushed to possess the region's vast resources. Despite their pledge to return Manchuria to the Chinese government, the Soviets timed their withdrawals for Communist benefit and turned over significant stocks of captured Japanese arms to CCP forces. The United States gave the Nationalists a leg up by ferrying thousands of Nationalists troops into the region. By early March, as the antagonists jockeyed for position, the situation in Manchuria resembled that of northern China several months before.

Marshall had cobbled together an agreement extending headquarters' jurisdiction to Manchuria. However, he returned to the United States before the details had been finalized, and disagreements over technical matters delayed the organization's activation. Meanwhile, fighting continued to escalate. On 15 April, three days before Marshall returned to China, the CCP launched a major effort to overrun Nationalist garrisons in Manchuria before the US transport operation sufficiently reinforced them. Even more disturbing, the fighting spread into China proper, as Nationalist troops sought to clear land approaches to Manchuria. Immediately on his return, Marshall tried to stop the fighting, but his entreaties were ignored. The Nationalists, buoyed by a string of victories, pressed their advantage. Not until 7 June, when the Nationalists had become dangerously overextended and the Communists were sufficiently chastened, did the two parties consent to a truce in Manchuria.

The Executive Headquarters established a semiautonomous branch called the Advance Section in Changchun, Manchuria, to implement the accord. It was a streamlined version of the Beijing Headquarters and had eight truce-enforcement teams. The teams succeeded in ending most of the serious fighting but were less successful at returning truce violators to their 7 June positions. With the addition of Manchuria, headquarters operated 36 teams over 1 million square miles. Seriously overstretched, it had little chance of maintaining peace without the goodwill of both parties.

Descent into Civil War

The Manchurian cease-fire was Marshall's last notable accomplishment in China. Despite strenuous efforts, he was unable to resolve the difficult social and political issues dividing the two parties. Both sides increasingly let their guns speak for them. On the day the cease-fire went into effect in Manchuria, Mao launched a major offensive in Shantung province. Chiang responded with a series of highly successful offensives, but each Nationalist victory put another nail in the peace process's coffin. The Nationalists became more cocky; the communists more obstinate.

Each new cease-fire violation damaged the prestige and effectiveness of Marshall and the Executive Headquarters. By June, most tripartite meetings had become little more than verbal brawls. Accusations, counteraccusations and histrionic diatribes followed each other. The dialectically trained Communists were particularly adept at verbal combat, though the Nationalists were no strangers to sophistry. Both succeeded in frustrating the Americans and knotting the peacekeeping machinery. Although the US members went through the motions of drawing up plans, making proposals and holding meetings, progress toward restoring China's communications infrastructure, reorganizing its military forces and enforcing the truce ground to a halt. The only headquarters activity that proceeded unabated was the repatriation of Japanese soldiers and civilians from China—the one thing on which all could agree.

In midsummer, the United States made a final effort to prevent full-scale civil war; it imposed an embargo on the shipment of military goods to the Chinese government. The Communists complained that the United States continued to sell "non-lethal" commodities to the Nationalists. The Nationalists, smelling victory, disregarded the embargo and continued their offensives so the embargo weakened the CCP without affecting the KMT.

In June, US and KMT negotiators proposed that the United States be given a deciding vote in all deliberations. This arrangement would have revitalized the peace process by transforming the US role from one of mediation to arbitration. The Communists balked at extending such extraordinary power to the Americans, and the proposal died. Instead, the three parties issued directives demanding compliance with headquarters edicts and threatening punishment for violators. More often than not, these declarations proved meaningless.

As the conflict escalated, US peacekeepers became increasingly frustrated, not only because Chinese obstinacy prevented progress, but because both parties blamed the United States for peacekeeping failures. The Communists were especially culpable, launching a propaganda campaign against the United States that further strained US objectivity. Tempers flared and several truce teams became dysfunctional.

Frayed emotions were not the only hazards of peacekeeping duty. Communist soldiers and civilians became increasingly hostile. United States aircraft bearing supplies for truce teams were occasionally fired on, as were the US Marines guarding north China's railways. In July, CCP troops imprisoned seven Marines who had "invaded" Communist-controlled territory while searching for ice to chill their beer. No sooner had headquarters procured their release than 300 communist troops ambushed a Marine convoy near An Ping. The four-hour battle left three Marines dead and 11 wounded—one mortally. Marshall was outraged by the attack and by the Communists' allegation that the battle resulted from a joint US-KMT assault on An Ping. The Communists also detained several US peacekeepers on charges of espionage.

By September, matters had deteriorated so much that headquarters withdrew 11 truce-enforcement teams for safety reasons. Of the remaining 17 teams only four were fully functional. The United States tried to circumvent these problems by getting both parties to agree to bipartite field teams. Each bipartite team would consist of one US and one Chinese representative—a Nationalist in Nationalist-controlled areas and a Communist in Communist areas. The teams were to limit their activities to observation and reporting, leaving the task of adjudication to headquarters personnel. This system had several advantages; it eliminated internecine struggles within the teams and spared them from having to cross front lines, an increasingly risky action. It had the added benefit of preventing the Chinese from using the teams to spy on one another's activities, something both parties did frequently.

The bipartite system proved no more successful than the old one; it came too late. In November, Chiang destroyed any chance for a peaceful settlement when he unilaterally called together China's long-dormant National Assembly to ratify a new constitution without Communist participation. The Communists regarded this action as a virtual declaration of war, and Zhou departed from the Committee of Three, declaring that the Committee and Executive Headquarters had outlived their usefulness. Walter Robertson, the US Commissioner at the Executive Headquarters, apparently agreed, for he had resigned in frustration the month before. Reluctant to concede defeat, Marshall remained in China for a few more weeks. Finally, on 8 January 1947, Marshall left China to become US Secretary of State. The officers and men of the peacekeeping apparatus soldiered on until 6 February 1947, when the US section of the Beijing Executive Headquarters officially closed. The experiment in truce enforcement had failed, and the Chinese Civil War—a war that Mao would eventually win—began in earnest.

In Retrospect

Many factors contributed to the failure of truce enforcement. United States Army personnel were unprepared for their duties; their Chinese counterparts showed little enthusiasm for their work. The hastily assembled headquarters had not resolved important matters of policy and procedure before it was established. The multilayered structure of tripartite committees—each requiring unanimous consent—and the absence of any prearranged system of sanctions made it virtually impossible for headquarters to implement mandates. In Marshall's estimation, these flaws created "insurmountable, maddening obstacles [that] the superb courage of the officers of our Army and Marines" were unable to overcome.[5]

Although it was probably true the Chinese people longed for peace, their destiny lay in the hands of opposing political elites bent on each other's destruction. What ultimately killed the peace effort, Marshall noted, was the factions' "complete, almost overwhelming" suspicion of one another, a suspicion that neither

he nor anyone else could readily overcome.[6]

Although it appears trite, the fundamental lesson of the Marshall Mission is that one cannot compel two parties bent on destroying one another to make peace. Before embarking on a peacekeeping operation, policymakers must ascertain through cold, hard analysis whether conflicting parties are genuinely committed to peacefully resolving their differences. If they are not, then peacekeeping efforts, no matter how well organized or executed, will fail. **MR**

NOTES

1. A. Dee Willis, "Peiping Executive Headquarters, 1946-47," Senior thesis, Vanderbilt University, 1970, 22.
2. Wesley Wilson, "The United States Army's Contribution to the Marshall Mission in China, 1 January 1946 to 1 March 1947," M.A. thesis, University of Maryland, 1957, 30. Wilson was a member of the Executive Headquarters.
3. "Operations Report, The Executive Headquarters, Peiping, China, 1946-47, Section I, The United States Branch," 5, Record Group 319, P&O, 091 China, box 62.
4. Willis, 126.
5. Forrest Pogue, *George C. Marshall: Statesman, 1945-49* (New York: Viking, 1987), 142.
6. Wilson, 90-91.

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$_{MR}$Conference Report

Non-Lethal Weapons Conferences
by Robert J. Bunker

Several worldwide conferences are or have been considering the future of non-lethal weapons (NLW). NLW proliferation and practicality continue to offer intriguing possibilities for "bloodless" warfare.

The NDLA Conference

The National Defense Industrial Association's Non-Lethal Defense III Conference was held at the Johns Hopkins Applied Physics Laboratory, Laurel, Maryland, in February 1998. Several themes emerged. For example, NLW are now generally recognized for utility in military operations in urban terrain (MOUT), which principally occur in failed- and failing-state environments. NLW proved their worth in Haiti, Somalia and Bosnia, offering US soldiers options between applying lethal force or none. NLW will become increasingly important in rapidly changing security environments where anarchy and societal warfare occur and where nonstate groups actively challenge the legitimate political authority of nation-states.

Some military and law-enforcement groups are interested in "rheostatic" or tunable weapons that can be made lethal or non-lethal by pushing a button or turning a dial. If a stability and support operation (SASO) devolves into a shooting conflict, lethal force could still be used almost immediately. Another promising system demonstrated at the conference was the "Laser Dazzler," a dual-technology device for both military and law-enforcement use.[1] Resembling a slightly oversized flashlight, its eye-safe laser produces an intense beam of green light programmed to create a "strobe" effect. The device could be used to project an "optical wall" beyond 50 meters as a defensive cybershield in front of US forces in MOUT or SASO. Such a wall would turn away most individuals or provide an extra time cushion for US forces.

The publication *Joint Non-Lethal Weapons Program, 1997—A Year in Review* candidly discusses the Joint NLW Directorate's progress during its first year.[2] A joint, non-lethal weapons CD ROM database and a bimonthly newsletter also support the NLW community. For information, call 703-784-1997 or visit <http://iis.marcorsyscom.usmc.mil/jnlwd/>.[3]

A Joint Concept for Non-Lethal Weapons, a paper read at the conference, directly supports the operational concept in *Joint Vision 2010* based on the need for full-dimensional protection. This document specifies that NLW should leverage high technology, enhance operations, augment deadly force, provide rheostatic capability, focus on tactical applications, facilitate expeditionary operations, maintain policy acceptability, provide reversibility in counterpersonnel effects and apply across the range of military operations. Core capabilities are based on a counterpersonnel and counter-materiel focus. The document also has an annex that contains scenarios for NLW employment. The paper can be accessed at the Joint NLW Program web site.[4]

A number of representatives from the new Institute for Non-Lethal Defense Technologies, Applied Research Lab, Pennsylvania State University, attended this conference. The Joint NLW Program has established a relationship with the Institute. The group's goal is to establish evaluation criteria and standards for NLW testing. Such criteria are important because no definition of "incapacitation" or other terms currently exists. The Institute can be reached at 814-865-3911 or E-mail <rrm11@psu.edu>.[5]

Conference proceedings can be downloaded from the Defense Technical Information Center's web site at <www.dtic.mil/stinet/ndia/nld3.html>.[6] This conference series traditionally occurs every other year. Non-Lethal Defense Conference IV

will meet on 21-22 March 2000, in Tysons Corner, Virginia.

Jane's Information Group Conference

The Jane's Information Group Conference on "Fielding Non-Lethal Weapons in the New Millennium" was held in London, 1-2 November 1999.[7] Several discussions centered on the paradigm shift in US enemies. Nonstate actors such as political and religious factions or terrorists were viewed as viable, modern-day threats. When nonstate forces are armed with weapons of mass destruction, conventional military tactics will be less effective against them. As a result, NLW will be critical in any struggle.

The International Committee of the Red Cross has initiated the "SirUS (or SIrUS) Project," which attempts to define the legal phrase "superfluous or unnecessary suffering" in regard to weapons.[8] This project concerns NLW by attempting to mandate which weapons Western governments can or cannot use. While this is a well-intentioned nongovernment initiative, legal reviews of these weapons already occur, so this project represents a redundant and potentially burdensome development in fielding NLW.

One study casts doubt on using acoustics as NLW. Specifically, the alleged effects of infrasound and strong-sound were questioned because they contradicted scientific evidence obtained in a detailed study supported by the Peace Studies Program, Cornell University; the MacArthur Foundation; and the State of Nordrhein-Westfalen, Germany.[9] If this study is accurate, then acoustic weapons are not currently viable.

Two forms of NLW-targeting schemes were discussed. The first concerned "functions targeting." Macro-level function targeting focuses on the enemy's processes: command and control, communications, analysis, everything necessary to build, transport or employ a weapon system. Function targeting centers on the ability to intrude, interfere, deceive, disrupt, delay, deny, disorient, incapacitate, simulate and manipulate the enemy. The second form concerned "bond-relationship targeting," focusing on degrading, severing and altering the bonds or relationships that allow an enemy to conduct war. Disrupting an enemy and sending him into chaos is the desired end state.

NLW sets, fielded by the US Marine Corps, provide a 200-man company with equipment and four categories of munitions: personnel protectors, personnel effectors, mission enhancers and ammunition. All weapons are acceptable from legal, ethical and political perspectives. They produce reversible effects against personnel, are expeditionary and provide options in situations where lethal force might not be appropriate. These weapons are to augment lethal force, not replace it.

The question of a "silver bullet" antipersonnel NLW was discussed. If one were to exist, it would be based on nerve stimulation using electrical impulses. The weapon would cause little or no physical trauma and would affect the largest human target—touch—derived from the skin organ with 21 square feet of receptor surface. The holdup on development is not the nerve-stimulation effects but the delivery to the target. Some form of electromagnetic carrier beam would be the most efficient means of impulse-disruption delivery.

Current US military missions encounter three force models: traditional warfighting, military operations other than war and law enforcement. Facing terrorists is best done using the traditional military force model when generating rules of engagement.

Miscellaneous discussion topics included the nature of future conflicts, operational requirements, science and technology and culture and law. Also discussed were the criminalization of national governments, the ambiguous nature of conflicts, the proliferation of NLW technology and the need to revise international law.

Conference Conclusions

While nongovernment operations raise important issues, inflexible or dogmatic interpretation of international law is counterproductive, as are unrealistic perceptions of future warfighting. For example, attendees readily advocated the use of lethal force against combatants hiding behind "human shields," rather than using NLW, which would temporarily incapacitate innocents and combatants alike so combatants could subsequently be captured.

The argument that some states might misuse NLW and, therefore, such weapons should be banned, is not persuasive. Following this logic, car batteries should be outlawed because they can be used for torture. Non-lethal weapons represent new forms of weaponry, like the crossbow and firearm before them, which will continue to proliferate and evolve. Any attempt to ban them, especially directed-energy devices, will ultimately fail. Military forces who do not master these weapons and develop the proper force structures and concepts to use them will find themselves ineffective and irrelevant in future conflicts. *MR*

NOTES

1. For more information, visit LE Systems, Inc., Glastonbury, CT, at <www.laurin.com/Directory/LPHTML/nai/13489600.htm>.
2. NLW Directorate, *Joint Non-Lethal Weapons Program, 1997—A Year in Review,* February 1998.
3. US Department of Defense, Joint Non-Lethal Weapons Program, <http://iis.marcorsyscom.usmc.mil/jnlwd/>, updated 20 October 1999.
4. Ibid.
5. Note: To access this E-mail address, be sure to use the numeral "one", not the letter "ell."
6. US Department of Defense, Defense Information Systems Agency, Arlington, VA.
7. For information concerning conference transcripts and/or booklets, contact Jane's at <oni.taha@janes.co.uk>.
8. For more information, visit <www.wma.ne/e/press/98_18b.html>.
9. For more information, visit <einaudi.cornell.edu/PeaceProgram/>.

Robert J. Bunker is an adjunct professor, California State University, San Bernardino. He holds a Ph.D. in Political Science from Claremont Graduate University. He has served as a consultant to both military and law-enforcement agencies and is a recognized expert on emerging forms of warfare and terrorism. In 1999, he served as a fellow, Institute of Land Warfare, Association of the United States Army. His review essay of Malcolm Dando's book, A New Form of Warfare: The Rise of Nonlethal Weapons, *appeared under the title "Non-Lethal Weapons: A British View," in the July-August 1998 edition of* Military Review.

MRBook Reviews

CODE-NAME BRIGHT LIGHT: The Untold Story of U.S. POW Rescue Efforts During the Vietnam War by George J. Veith. 320 pages. Free Press, New York. 1998. $25.00.

Code-Name Bright Light addresses the history of the US prisoners of war/missing in action (POW/MIA) intelligence and wartime rescue operations that have remained concealed under the shroud of national security. George J. Veith covers the earliest rescue attempts and the formation of the supposedly centralized Joint Personnel Recovery Center (JPRC), a small clandestine detachment organized in 1966 to collect and analyze intelligence reports on captured Americans in Laos, Cambodia and Vietnam and, if possible, to organize raids to rescue them.

The *Bright Light* story is tragic. Although the JPRC remained in existence for 6 years, it never recovered a single American POW. Veith cites the difficulty in acquiring and acting on timely intelligence; the amorphous nature of the "target," which was essentially a group of prison camps on the move in South Vietnam and Laos; the impediments of weather and terrain; and the reluctance of some commanders to undertake what they viewed as high-risk operations with limited prospects of success. In addition, bureaucratic jealousies, interservice rivalries and limited resources delayed missions that depended on quick response. Consistent ill fortune and "fog and friction" repeatedly doomed operations that to succeed required almost everything to go exactly right. Thus, despite heroic efforts, none of the more than 125 rescue attempts succeeded.

Veith also addresses how the secrecy dictated by the effort to recover POWs led to agonizing conflicts with families of those carried as missing or imprisoned. The families perceived that little or nothing was being done to help their loved ones.
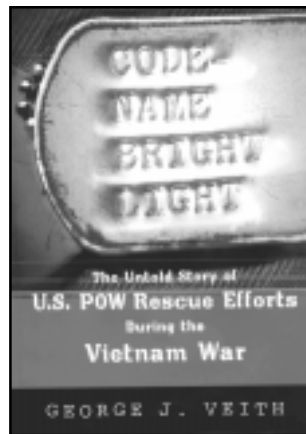
Unable to reveal the extensive operations under way, the government was confronted by an increasingly organized, activist and ultimately, hostile group of families, even though the situation weighed heavily on military leaders like General Harold K. Johnson. Veith concludes: "In essence, the military did their very best to recover American POWs; yet they completely failed." However, the failure was not for lack of the essential qualities of commitment, courage or compassion.

On the critical and inevitable question of whether some prisoners remain "unreturned," Veith stresses the questionable nature of *post facto* testimony, especially that of Laotians and Vietnamese, whose countries endured further turmoil after the JPRC was disbanded in early 1973. An "informal survey" of over 50 JPRC personnel reveals that about half believe some men were left behind in Vietnam. Almost three-fourths of those surveyed believe Americans were still alive in Laos in 1973. However, these results appear to be based more on emotionalism than hard facts.

Veith has assembled an impressive, extensive range of previously unseen material, conducted numerous interviews with key participants, reviewed diaries and correspondence, conducted archival research in many repositories and unearthed some material not previously exploited, including recently declassified National Security Agency (NSA) intercepts, State Department cables and wartime interrogation reports. This is the book's strongpoint. Unfortunately, the book also has serious shortcomings.

Veith's approach is almost episodic and appears to be a compilation of research notes rather than a detailed analysis that relates rescue efforts to the Vietnam War's larger context and connects the JPRC with what was happening elsewhere in the war. Still, the book usefully examines an important topic that had largely been ignored until the late 1990s, partly because it took that long before many relevant documents were declassified. Although his analysis could have been stronger, Veith makes a genuine contribution to the historical understanding of the Vietnam War.

LTC James H. Willbanks,
USA, Retired,
Department of Joint and
Multinational Operations,
Fort Leavenworth, Kansas

GENERAL STAND WATIE'S CONFEDERATE INDIANS by Frank Cunningham. 252 pages. University of Oklahoma Press, Norman, OK. 1998. $14.95.

Originally published in 1959, *General Stand Watie's Confederate Indians* fills an important void in Civil War history. Frank Cunningham's book breaks the stereotype that Confederate soldiers were primarily of European descent. As with the newer works on African American Confederates, Cunningham's book shows that the Confederate cause crossed cultural and ethnic lines and does a reputable job of telling how Cherokee Indian chief Stand Watie became a Confederate general officer

with his Cherokee tribesmen following him from Wilson's Creek, Missouri, to the end of the war in the West.

By portraying the Indian contribution to the Confederate effort, it provides an interesting study of alliances between diverse peoples with the same general goals. The Confederacy's inability to properly support its Indian allies proved to be a weak link in the South's political and military policies.

Cunningham's unbiased description of how Watie and the civilized tribes of Indian territory sided with the same South that had expelled them from their ancestral homelands less than 30 years before is a fascinating study in human nature. Rather than blame Southerners, the Indians directed their animosity toward the Federal government, whose intrusion was as much a continued threat in their lives as it was to Confederate states' rights.

The Confederacy's inability to properly support the Five Civilized Tribes caused major dilemmas for the loyal Cherokees. Already poor in resources, the Indians often went to battle without adequate weapons, hoping to obtain battlefield residue. Watie's Indians loyally supported secession until the end, even though they were ill supplied. Unfortunately, the Indians were not only on the losing side, they were still Indians. Post-war Federal policies treated them doubly harsh.

A gentleman-soldier of great character, Watie stuck by his convictions and fought with tremendous zeal for the Confederacy. Even when declining fortunes of war in the South pointed toward eventual defeat, Watie did not betray his trust. His surrender in June 1865 made him the last Confederate general to cease hostilities. Watie's reputation was undiminished and untarnished, certainly aided by his personal wartime leadership. He returned to his Red River valley home and died in 1871 after his nation had signed another treaty with the US in 1866 guaranteeing the Cherokees minimal autonomy.

LTC Edwin L. Kennedy Jr.,
USA, Retired,
Leavenworth, Kansas

VENONA: Decoding Soviet Espionage in America by John Earl Haynes and Harvey Klehr. 487 pages. Yale University Press, New Haven, CT. 1999. $30.00.

The Cold War was as aggressive as any hot war, and the stakes were just as great. *Venona: Decoding Soviet Espionage in America* analyzes Soviet Communist Party archives and declassified, deciphered messages of the *Komitet Gosudarstvennoi Bezopasnosti* (KGB).

Venona, a project code word, was a highly classified National Security Agency (NSA) effort to decode cables from diplomats at the Soviet consulate and the People's Commissariat of Foreign Affairs in Moscow.
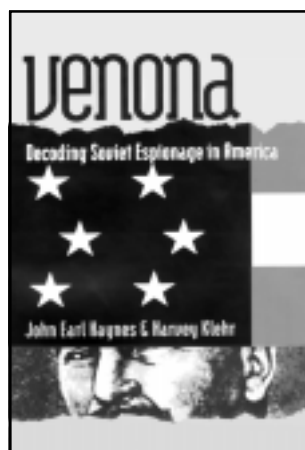
These cables concerned not diplomacy but espionage. They dealt with the KGB's active recruiting of US communists as spies and conducting background checks with the Communist International. The American Communist Party became an underground network for launching an "unrestrained espionage offensive." The names within the cables became the who's who of exposed spies in western governments, industry and atomic projects.

John Earl Haynes and Harvey Klehr provide thumbnail sketches of such prominent spies as British Intelligence liaison Kim Philby, a Soviet agent within the British government, and William Weisband, a linguist on the project at Arlington Hall. Others were Klaus Fuch, Julius and Ethel Rosenberg, Judith Coplon. The authors' research shows how Venona

messages reveal Julius Rosenberg's role as the leader of a productive ring of Soviet spies and clears up much of the doubt surrounding the Rosenbergs' guilt. Unfortunately, there are no easy, comprehensive solutions in the world of espionage, and Venona was no different. Many agents in Venona had cover names and could not be identified.

Venona is well-documented and informative. As a former intelligence officer, I would have preferred some of the sources and, particularly, the methods to remain classified. As current headlines reveal, foreign powers still come to America to steal secrets. However, everyone should read the book. It will help dispel foggy conjectures and balance revisionist misrepresentations that have assaulted US efforts in the Cold War.

COL Richard N. Armstrong,
USA, Retired,
Copperas Cove, Texas

STOLEN VALOR: How the Vietnam Generation was Robbed of Its Heroes and Its History by B.G. Burkett and Glenna Whitley. 692 pages. Verity Press, Inc., Dallas, TX. 1998. $31.95.

Stolen Valor is an angry book. It will upset almost everyone, and it will infuriate the activists and the sympathizers of the old antiwar movement. B.G. Burkett and Glenna Whitley systematically demolish the most fervently believed falsehoods and myths surrounding the Vietnam War. The book will offend broadcast and print journalists, whom Burkett and Whitley severely criticize for repeating and thereby giving credence to absurd atrocity stories that can be disproved easily with minimal investigation; it will also upset soldiers who honorably served their country in Vietnam. On page after page, the authors expose the phonies and the liars who today pass themselves off as decorated Vietnam veterans.

An ordnance officer in the 199th Infantry Brigade from 1968 to 1969, Burkett has been on a one-man crusade for more than 10 years to uncloak the truth about Vietnam and those who served. In the 1980s he spearheaded efforts to establish the Texas Vietnam Veterans' Memorial. During fund-raising efforts, he en-

countered reactions ranging from indifference to outright hostility. Often the response was, "Vietnam veterans! Why should I contribute to those losers?"

Burkett's group persevered, and on 11 November 1989, President George Bush finally dedicated the memorial. After the ceremony, the local press wanted to get reactions from Vietnam veterans, but when Burkett invited reporters to speak with committee members, they declined. They did not want to speak to businessmen in coats and ties; they preferred to talk with the "real" Vietnam veterans in ragged jungle fatigues and "boonie" hats. Burkett wondered just who the "veterans" really were and how many had actually served in Vietnam.

In the following years, Burkett critically evaluated all media reports about Vietnam veterans and their problems. He reviewed scientific, and not-so-scientific, studies that seemed to support popular stereotypes. Slowly and methodically, he amassed overwhelming evidence that contradicted these notions.

In *Stolen Valor*, Burkett and Whitley completely demolish the myths of Vietnam veteran joblessness, homelessness and suicide rates. He presents strong and compelling evidence to disprove the widely held belief that a disproportionate burden of combat service fell on minorities and the poor. Tackling Post Traumatic Stress Disorder (PTSD), Burkett shows that the psychological and readjustment problems of Vietnam veterans were no worse than those of veterans of previous wars. He argues that the Agent Orange problem is vastly overblown. With PTSD and Agent Orange, Burkett challenged head-on two of the Veterans Administration's most sacred cows.

Burkett reserves his special ire for liars and "wannabes." Using the Freedom of Information Act (FOIA) to obtain service records, he exposed countless fakes and frauds, ranging from a judge who falsely claimed to be a Medal of Honor winner to rag pickers in ratty fatigues wearing green berets, Silver Stars and Distinguished Service Crosses. He even exposed those still on active duty or in the reserves who have grossly inflated their military records.

Phonies get away with their charade because of a general reluctance to challenge them—no matter how outrageous their stories. Burkett harshly criticizes reporters who write that someone is a decorated Vietnam veteran, or even a former POW, simply because that person says he is.

Pass in Review

THROUGH THE VALLEY: Vietnam, 1967-1968, by James F. Humphries. 335 pages. Lynne Rienner Publishers, Boulder, CO. 1999. $49.95.

Through the Valley details the US Army 196th Light Infantry Brigade's battles and small-unit actions in South Vietnam from 1967 to 1968. Although the book has some excellent first-hand accounts of close combat in Vietnam, one must wade through often-mundane detail to get to them. Following the action is difficult, in part because the names of the soldiers involved in the fighting constantly change, which of course is not the author's fault. The book describes typical Vietnam small-unit actions—soldiers running patrols, walking through rice paddies, wading through creeks and occasionally fighting in terrifying close combat. Unfortunately, this activity does not make the book interesting. Also, the maps do not show enough detail to add clarity. I found it easy to put down. **—MAJ Craig A. Collier,** *USA, Fort Shafter, Hawaii*

THE GENERAL AND THE JOURNALISTS: Ulysses S. Grant, Horace Greeley and Charles Dana by Harry J. Maihafer. 320 pages. Brassey's: Washington, DC. 1998. $24.95.

The General and the Journalists explores the relationship between Ulysses S. Grant, Charles Dana and Horace Greeley and how military-media relations shaped Union strategy during the Civil War. Greeley and Dana's stories about Grant's activities in the Western Theater launched him first to command of all Union armies then into the White House. Grant adroitly managed his relationship with the media to improve northern public opinion without compromising operational security. Unfortunately, Maihafer's narrative often hides the importance of military-media relations. The book is a loose biography of Grant, with occasional asides about Greeley and Dana. An analytical treatment of this important and timely subject remains unwritten.**—1LT Richard D. Starnes,** *USA, Cullowhee, North Carolina*

DEATH OR GLORY: The Legacy of the Crimean War by Robert B. Edgerton. 288 pages. Westview Press, Boulder, CO. 1999. $22.50.

Robert B. Edgerton weaves Crimean War events into a cautionary tale. No sound political reasons existed for the war, but ironically, the British public strongly supported it. Its popularity introduced changes in handling the sick and wounded and eventually led to the Red Cross's founding. Overall, however, the war was a sad affair punctuated by poor planning, worse execution and callous indifference to the conditions that surrounded the sick and wounded. Edgerton gives fair treatment to all sides, and the personal accounts are highly interesting and enlightening.**—MAJ William T. Bohne,** *US Army, Retired, Leavenworth, Kansas*

Reporters also repeat the grotesque and false stories of soldiers routinely killing children and taking ears. Is it any wonder that many Americans believe that war crimes and atrocities were the routine of the US military policy in Vietnam? Such stories reinforce the negative but erroneous stereotypes of the Vietnam veteran in US society today. As Burkett proves in case after case, many "Vietnam veterans" never set foot in Vietnam, and some never served a single day in uniform.

If you served in Vietnam, read this book. It will make you boiling mad. We owe "Jug" Burkett a debt of gratitude for his splendid work. Even if you did not serve in Vietnam, read this book. It is a cautionary tale for the future.

COL David T. Zabecki, *USAR, 7th Army Reserve Command, Heidelberg, Germany*
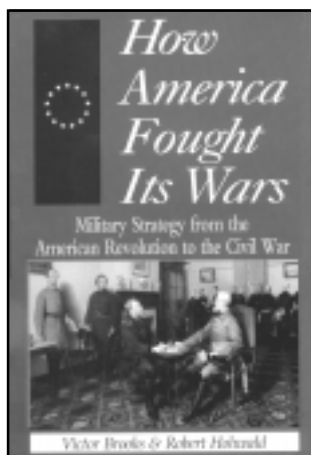
HOW AMERICA FOUGHT ITS WARS: Military Strategy from the American Revolution to the Civil War by Victor Brooks and Robert Hohwald. 496 pages. Combined Publishing, Consohocken, PA. 1999. $29.95.

In *How America Fought Its Wars,* Victor Brooks and Robert Hohwald announce their intention to produce a "unique combination of battle narratives, campaign analysis and speculative discussion concerning possible alternatives to the events that actually occurred from 1765 to 1865." Since many previous scholars, historians and military analysts have applied all three of these approaches often and at length, it is difficult to find a "unique combination."

Regrettably, Brooks and Hohwald fail to do so. They devote 216 pages of a 496-page book to the American Civil War, surely the most analyzed and discussed single conflict in US history and the subject of thousands of earlier treatments. So, it is no surprise their "narratives, campaign analysis and speculative discussion" of this conflict have been

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THE IDEA OF HUMAN RIGHTS: Four Inquiries by Michael J. Perry. 106 pages. Oxford University Press, New York. 1998. $35.00.

The idea of human rights is a popular 20th-century topic. Michael J. Perry discusses how religion and ethics play into the subject, then asks hard questions. Is it right to kill a terrorist's child to try to force him to disclose where he has hidden a nuclear device in a populated area? His other children would meet the same action if he does not tell. Is it right for one or two innocent children to die to save thousands? Perry has done a service to bring this issue to military leaders' attention for thoughtful discussion. Every officer who might be in a position to decide on human rights should read this book and think through such dilemmas. **—LTC Lynn L. Sims,** *USAR, Retired, Richmond, Virginia*

NEVER IN DOUBT: Remembering Iwo Jima edited by Lynn Kessler. 288 pages. The Naval Institute Press, Annapolis, MD. 1999. $32.95.

Never In Doubt: Remembering Iwo Jima is based on oral history, which has come back into popular use. The book relates first-person accounts of activities or experiences, whether in combat arms, combat medical corpsman, communications, headquarters and wounded. The closing two chapters are especially poignant. Because so many aging World War II and Korean War veterans are now dying, it is very important to capture their experiences for posterity.—**Richard Milligan,** *TRADOC Analysis Command, Fort Leavenworth, Kansas*

ALLY TO ADVERSARY: An Eyewitness Account of Iraq's Fall from Grace by Rick Francona. 188 pages. Naval Institute Press, Annapolis, MD. 1999. $27.95.

Air Force intelligence officer and Middle East specialist Rick Francona was the lead field military interpreter during the Gulf War and helped write reports to Congress. He has unique insights, having befriended Iraq officers, who are now on the other side in the peace talks. This excellent, well-written book answers questions about the US relationship with Iraq during the Iran-Iraq War. Francona tells of his experiences with the Saudi Arabians, who did not want US soldiers' waste on Saudi ground and insisted on separating donated Christian and Muslim blood. The book also includes good discussions on chemical-weapon and missile use, social changes in Saudi Arabia, Israel's place in the Arab mind and US Middle East strategy. **—LTC Lynn L. Sims,** *USA, Retired, Richmond, Virginia*

covered elsewhere.

In their "alternative strategies and outcomes" for the War of 1812, the authors argue that President James Madison's government could and should have adopted Robert Fulton's scheme to build 20 steam frigates and exploit "a technological breakthrough similar to the introduction of airplanes." The authors are apparently aware, although they never mention it, of the launching of the first US steam frigate, the *Demologas,* late in the war. What they ignore is the doubtful ability of US shipyards to quickly produce numbers of such vessels. Furthermore, despite Fulton's understandable enthusiasm, the *Demologas* proved underpowered and poorly designed as a warship. Not until the development of better engines and the screw propeller were practical steam-propelled fighting ships built.

Other parts of the authors' analyses are similarly shallow. In discussing the American Revolution, they suggest that the "terrible experience" of the Continental Army at Valley Forge was "mythology" since, although "food and clothing were in short supply, temperatures were in the high 30s and low 40s" with "slightly below normal snowfall." This contention is monumentally obtuse. Clearly Brooks and Hohwald have no conception of what it is like to live outdoors with inadequate food and clothing in temperatures only 10 degrees above freezing for a period of months. They seem to have never heard of hypothermia.

The authors also seem to believe that it was a "coincidence" that President Abraham Lincoln's term of office coincided closely with the length of the Civil War. It is fairly obvious to most historians that Lincoln's election was a proximate cause of the war and his assassination an immediate result of the Union victory. No coincidence is involved.

The scholarship behind the book is a mystery. No biographical information is offered on the authors, so it is impossible to judge their academic and professional credentials. At several points they do refer to the vast amount of research and "extensive examination of documents" and their "extensive use of the memoirs

of significant leaders." However, at no point do they make any specific reference to any source material or connect it in any direct way with the body of the text. They provide no footnotes, no endnotes or bibliography and only a perfunctory index. This makes it impossible to evaluate the scholarship involved or to judge the value or even the nature of their sources.

In choosing "how America fought its wars" as a subject, the authors are working well-ploughed ground indeed. Since they offer no original accounts, special insights or new methods, and since they demonstrate a wide but shallow grasp of American military history, it is hard to see why the book was written at all.

LTC Thomas K. Adams,
USA, Retired,
Carlisle, Pennsylvania
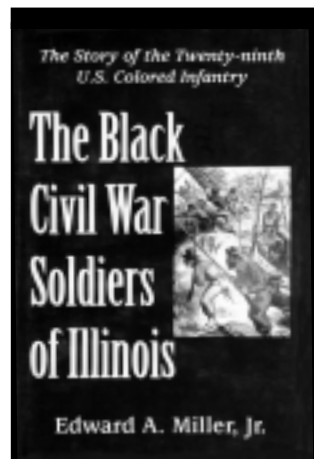
THE BLACK CIVIL WAR SOLDIERS OF ILLINOIS: The Story of the Twenty-Ninth U.S. Colored Infantry by Edward A. Miller Jr. 267 pages. University of South Carolina Press, Columbia, SC. 1998. $29.95.

American poet Walt Whitman once stated that the interior history of the Civil War soldier would never be told. Though Whitman's assessment is generally true, in *The Black Civil War Soldiers of Illinois*, Edward A. Miller offers an interpretive rapprochement through a new history of the Black 29th US Colored Infantry, a unit formed in Illinois. Yet, this book is not simply a regimental history; it is a deeper study of the lives of Black recruits in the

Civil War era and a journey into the hinterlands of American racial pathos.

Throughout this study, Miller explores the biographies of individual soldiers, revealing their often convoluted histories. Miller uncovered interesting and valuable demographic and socioeconomic data during his research, which not only expands our knowledge of the Black soldier but also the culture of the 29th's white officers, whom their fellow Union soldiers often unduly prejudged as incompetent.

The 29th's only substantial combat experience came at the ill-fated Battle of the Crater, Petersburg, Virginia, where the employment of Black regiments was unfairly blamed for battlefield failures. Many in the North pinned the responsibility for the disaster on supposedly inferior Black troops, but Miller's historiography yields a saner assessment through a detailed account of the battle.

At the war's end, instead of disbanding, the 29th was brought up to full strength and marched to Texas to meet a perceived threat from French encroachment into Mexico. Life was "difficult, food shortages common and medical care inadequate"; many died of privation. The men of the 29th performed with proficiency on a par with their white comrades, but national incredulity would persist with attitudes exemplified by "a mix of pity, paternalism, condescension and racial superiority."

Miller notes that 60 percent of the 29th's officers and men filed for pensions. Many claims for compensation based on service-related disabilities were exaggerated or downright fraudulent. No doubt many were motivated by extreme poverty. Regardless, these soldiers had completed their military service with "devotion and competence."

MAJ Jeffrey C. Alfier, *USAF,*
Davis-Monthan Air Force Base,
Arizona

THE REVOLUTIONARY WAR QUIZ AND FACT BOOK by Jonathan N. Hall. 272 pages. Taylor Publishing Company, Dallas, TX. 1999. $14.95.

When did John Adams write, "It ought to be solemnized with pomp

and parade, with shows, games, sports, guns, bells, bonfires and illuminations, from one end of the continent to the other, from this time forward, forevermore?" What song did the British Army band play as it marched out of Yorktown, Virginia, to formally surrender on 19 October 1781? Why is the Battle of Saratoga considered the turning point of the war? What battle, fought in South Carolina on 17 January 1781, has been frequently compared to Hannibal's victory over the Romans at Cannae? How many naval vessels did the British have at the start of the war?

Students, teachers, trivia buffs and historians will enjoy Jonathan Hall's 600-plus questions and answers in *The Revolutionary War Quiz and Fact Book* about "the defining event that established the foundation of this country and its rise to greatness." Hall includes questions and answers on pre-Revolutionary War years, the French and Indian War, the interwar years from 1783 to 1811, the War of 1812 and naval facts and actions on the high seas. The work, organized chronologically, covers the period's military, social and political history. There are three appendixes: Revolutionary War battle casualties, War of 1812 battle casualties and a list of ships, naval guns and captains of the Continental Navy. A chronology, bibliography, index and photo credits support the text.

For those still pondering the questions: Congress first voted for Henry Lee's resolution for independence by a vote of 12 for and none against, with New York abstaining, on 2 July 1776. According to legend, the British band played "The World Turned Upside Down." After British Major General John Burgoyne's surrender at the Battle of Saratoga, France decided to enter the war against England. The Battle of Cowpens is frequently compared to Hannibal's victory at Cannae. England began the war as the world's greatest military power with 270 ships in the Royal Navy.

MAJ Glenn E. Gutting,
ARNG,
New Orleans, Louisiana

WITH THE GERMAN GUNS: Four Years on the Western Front, by Herbert Sulzbach. 256 pages. Leo Cooper, London. 1998. First printed in German in 1935. $39.95.

World War I memoirs of the Western Front still have a curious fascination, although almost a century separates us from the horrific events of 1914-1918. Among the millions mobilized to serve in the trenches, hundreds of highly educated men graphically recorded their experiences. Men like Siegfried Sassoon, Robert Ranke Graves, Edmund Blunden, Henri Barbusse and Erich Maria Remarque used realism, irony and grisly detail to blow away any 19th Century illusions of the glory and romance of battle. Their work represented something new in Western literature and something new in the way Western civilization looked at warfare.

Western Front memoirs fall into two groups. The largest and most well known might be called the "innocence meets horrible reality" school. Represented by authors like Sassoon and Remarque, it has an almost prurient appeal. As when watching the replay of a terrible accident, we already know how the story will play out. The idealistic schoolboy marches off with visions of valor and national honor. Soon he is confronted with the futility and carnage of the Western Front. By the book's end, he is doing his best to maintain sanity, having discarded

any hatred of the enemy or conceptions of blind patriotism.

The other school, less well represented and of considerably less literary significance, might be called the "new man forged in the crucible of war" school. The school's most conspicuous exemplar is Ernst Juenger. In his famous autobiographical book, *The Storm of Steel* (Howard Fertig, New York, 1996, $13.00), Juenger describes his evolution from an immature youth to a rock-hard storm trooper. He found trench warfare exhilarating, offering the spirit of true comradeship, freedom from the constraints of materialist society and spiritual renewal based on patriotic sacrifice.

At first glance, one might be tempted to put Herbert Sulzbach's *With the German Guns* in the second category of war memoir. Sulzbach spent four years on the Western Front, apparently without wavering in his commitment to the cause of Imperial Germany. He was decorated with the Iron Cross First Class during the Battle of the Somme, commissioned from the ranks and was battalion adjutant by war's end. Throughout the conflict, he celebrated the close friendships built in shared adversity, marveled at the steadfastness of the common soldier and wrote with pride of Germany's powers of resistance against a world of enemies.

In the last month of war, with revolution brewing in Germany, he commented bitterly, "So now, while the people at home have already dropped out of the race, we chaps out here intend to show that the old power of resistance is still alive; and what a contrast there is between all this and what is going on at home." Passages like this caused the Nazi Party to give the book high praise when it appeared in 1935; that is, until the Nazis discovered Sulzbach's Jewish background. Sulzbach was forced to flee his homeland and by 1940 had joined the British Army to fight against the nation he had served so loyally.

This is a highly readable account of a soldier's day-to-day life during

a long and terrible war. In particular, two things are striking: Sulzback's emotional endurance and the sheer "mechanized" horror of *Materialschlacht* in the last months of the war. In July 1918, he wrote, "I don't know the word indicating the difference in degree required to describe the wholly crazy artillery fire which the French turn on for the attack in the morning. The word 'hell' expresses something tender and peaceful compared with what is starting here and now."

In *All Quiet on the Western Front* (Little Brown and Co., New York, 1929, $24.95), Remarque kills off his protagonist's friends as a literary device to emphasize the hopelessness brought on by the war. In Sulzbach's book, it is no device; virtually every

one of his friends was killed in action.

<div align="right">

LTC Scott Stephenson,
Combat Studies Institute,
Fort Leavenworth, Kansas

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THE WRONG WAR: Why We Lost in Vietnam by Jeffrey Record. 217 pages. Naval Institute Press, Annapolis, MD. 1998. $27.95.
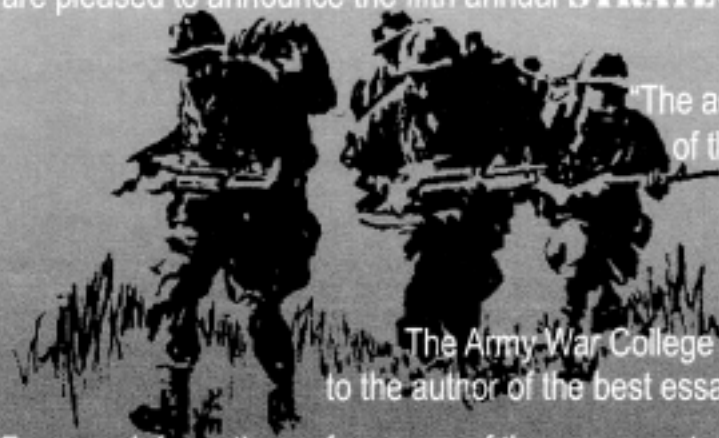
The United States went to war in Vietnam for the noble purpose of saving South Vietnam from communism. In April 1975 the United States withdrew from South Vietnam as North Vietnamese tanks entered Saigon. The United States had failed in its initial objective of saving the south from a communist takeover. Jeffrey Record explains why it failed

in *The Wrong War*.

Record lists reasons for defeat: US policy makers misinterpreted "the significance and nature of the struggle"; policy makers underestimated "the enemy's tenacity and fighting power"; decision makers overestimated "US political stamina and military effectiveness"; South Vietnam was not "politically competitive"; US civilian leaders intruded on "professional military prerogatives"; military strategy was faulty; and so on. There is nothing new here. Many analysts have reached the same conclusions. Only recently with the publication of H.R. McMaster's *Dereliction of Duty* (HarperCollins, New York, 1997, $27.50) has the bureaucratic infighting and resulting impotence of the

Joint Chiefs of Staff been added to the list of reasons for failure.

The book's strength is Record's compilation of all the reasons for failure into one highly readable book. He finds blame for all involved. He agrees with authors such as Philip Davidson, Andrew Krepinevich and Harry Summers about the failure of the US military to adopt a strategy that would meet the conditions faced. He agrees with Bruce Palmer that the US failed to develop the South Viet-namese military to the point that it could assume the fighting and paci-fication effort. He also agrees with those who take civilian leaders to task for their unwillingness to divert attention and resources from do-mestic affairs to bolster the will of the American people by convincing them the war was in the best inter-ests of the United States. As with many other analysts, he castigates President Lyndon B. Johnson for his failure to mobilize the reserves.

The question of whether the United States could have succeeded in Vietnam is one raised by many analysts. Record concludes that the US could have denied a communist victory only by maintaining a more or less permanent presence in South Vietnam. Although this is not the focus of the book, more than two paragraphs on the question would have added a valuable dimension.

LTC Richard L. Kiper, *USA,*
Retired, Leavenworth, Kansas

^{MR}Letters

Ship Misidentified

The photo caption on page 9 of Colonel David W. Krueger's No-vember-December 1999 article "Obstacles to Maneuver" mis-identifies the ship as the USS *Princeton* (CG 59) after striking a mine during Operation *Desert Storm*. The photo actually shows the USS *Stark* (FFG 31) after being struck by an Iraqi missile during the Iran-Iraq tanker war. These are totally different situations that oc-curred at different times involving different classes of ships. Granted, the *Stark* photo is much more dra-matic, but it does not belong with the article.

CDR Richard Payne,
US Army War College,
Carlisle Barracks, PA

Editor's note

We regret the error. *MR*

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CGSC Notes

DJMO

In its continuing efforts to engage international staff colleges and to enhance its joint and multinational focus for training, DJMO is sponsoring a pilot program in the area of combined training between CGSC and the Australian Command and Staff College. The program will provide an opportunity for international interaction during the annual *PRAIRIE WARRIOR* exercise and during several video teleconferences (VTC). A small number of Australian Staff College students will visit *PRAIRIE WARRIOR* this year to observe multinational staff training. Separately, a series of three VTCs will provide interactive discourse and discussion of security issues of mutual interest in the Asia-Pacific region. The curriculum is rounded out with student-selected region Studies and joint electives. Ten CGSOC students currently enrolled in a Pacific Regional Advanced Application Course will participate. A decision to conduct this program is expected shortly.

The Special Operations Forces (SOF) program is making great strides in its first year at CGSOC. The program was specifically designed to advance the professional education of SOF officers in both SOF-specific topics and SOF-conventional integration across the entire spectrum of conflict. SOF-specific areas are examined in the Advanced SOF and S3/XO/ODB courses. Both rely heavily on SOF SME guest speakers to expand on current, relevant and sometimes-controversial topics. SMEs include USCINCSOC; SOCOM component commanders; SF group and battalion commanders; and key SOF personnel at DOD, JCS, SOCOM and USASOC. Integration with conventional forces is concentrated in three SOF *PRAIRIE WARRIOR* planning seminars and a subsequent BCTP-run exercise. Also, SOF and conventional issues are explored in other SOF-focused program courses, which include Information Operations, GCCS and Corps Operations, plus Roots of War and Targeting for the PSYOP and CA tracks. The CGSC SOF faculty is reviewing these courses to update SOF program requirements for AY 2000-01 and, possibly, to add an entire area of concentration (AOC) for Special Forces officers at CGSOC. Comments from the field are always welcome. POC is LTC Mark Beattie (DSN 552-4224) or LTC Jim Starshak (DSN 552-4223).

From 14 through 25 January 2000, LTC Kevin Richards, Strategic Studies Division, DJMO, and Greg Flick, the Deputy Chief of International Military Affairs, USARPAC visited the Philippines, Singapore, Thai and Malay Command and Staff Colleges to coordinate curriculum development exchanges, briefings and dates for a subsequent visit by an SME exchange (SMEE) team from CGSC scheduled for this spring.

CSI

The Combat Studies Institute has several key activities planned over the course of several months. The first of these was the induction on 23 February of General (Retired) Colin Powell into the Fort Leavenworth Hall of Fame. As part of the CGSOC guest speaker program, CSI hosted Colonel (Retired) Barry Bridger on 28 February and Master Seargent Paul Howe on 5 April. Bridger discussed his years as a POW in North Vietnam, and Howe related his experiences as a Delta Force member during the "Black Hawk Down" incident in Somalia. From 1 through 10 April, Robert Baumann and George Gawrych will travel to Bosnia to conduct research on US Army activities in support of a study financed through the US Institute of Peace. From 1 through 12 May, CSI will conduct its annual Military History Instructor's Course for ROTC, Army Reserve School, Army Service School and National Guard OCS history instructors. There are only 40 spaces available, so those interested need to get their bids in soon.

Command and General Staff College